May, 1950

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EDISON ELECTRIC INSTITUTE BULLETIN

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UBLISHED MONTHLY BY EDISON ELECTRIC INSTITUTE

ELECTRICAL RESEARCH STATISTICS
THE ELECTRIC LIGHT AND POWER INDUSTRY

Current Statistical Data Covering 100 Per Cent of Industry

February, 1949-1950

SOURCE AND DISPOSAL OF ENERGY—MONTH OF FEBRUARY

	1950	1949	%
GENERATION* (Net)			
By Fuel Burning Plants	16,528,164,000	15,701,080,000	+ 5.3
By Water Power Plants	,741,400,000	7,294,968,000	+ 6.1
Total Generation	**24,269,564,000**	**22,996,048,000**	**+ 5.5**
Add—Net Imports Over International Boundaries	88,200,000	94,100,000	− 6.3
Less—Company Use	133,330,000	127,601,000	+ 4.5
Less—Energy Used by Producer	320,055,000	258,056,000	+24.0
Net Energy for Distribution	**23,904,379,000**	**22,704,491,000**	**+ 5.3**
Losses and Unaccounted for	1,701,163,000	1,633,548,000	+ 4.1
Sales to Ultimate Customers	**22,203,216,000**	**21,070,943,000**	**+ 5.4**

CLASSIFICATION OF SALES

NUMBER OF CUSTOMERS—As of February 28th			
Residential or Domestic	35,882,447	33,842,779	+ 6.0
Rural (Distinct Rural Rates)	1,543,509	1,682,523	− 8.3
Commercial or Industrial:			
Small Light and Power	5,343,726	5,133,395	+ 4.1
Large Light and Power	225,846	227,715	− 0.8
Other Customers	149,497	142,629	+ 4.8
Total Ultimate Customers	**43,145,025**	**41,029,041**	**+ 5.2**
KILOWATTHOUR SALES—During Month of February			
Residential or Domestic	6,017,494,000	5,269,318,000	+14.2
Rural (Distinct Rural Rates)	405,400,000	456,070,000	−11.1
Commercial or Industrial:			
Small Light and Power	4,076,452,000	3,799,936,000	+ 7.3
Large Light and Power	10,296,641,000	10,182,695,000	+ 1.1
Street and Highway Lighting	250,688,000	233,311,000	+ 7.4
Other Public Authorities	597,385,000	550,455,000	+ 8.5
Railways and Railroads:			
Street and Interurban Railways	303,852,000	320,519,000	− 5.2
Electrified Steam Railroads	203,138,000	210,996,000	− 3.7
Interdepartmental	52,166,000	47,643,000	+ 9.5
Total to Ultimate Customers	**22,203,216,000**	**21,070,943,000**	**+ 5.4**
Revenue from Ultimate Customers	**$416,129,500**	**$389,489,400**	**+ 6.8**

RESIDENTIAL OR DOMESTIC SERVICE

AVERAGE CUSTOMER DATA—For 12 months ended February 28th			
Kilowatthours per Customer	1,713	1,586	+ 8.0
Average Annual Bill	$50.19	$47.42	+ 5.8
Revenue per Kilowatthour	2.93¢	2.99¢	− 2.0

(*) By Courtesy of the Federal Power Commission.

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EDISON ELECTRIC INSTITUTE BULLETIN

Volume 18 MAY, 1950 No. 5

Joint Accounting Conference at Louisville Tops All Records for Attendance

THE growing importance attached to the annual joint conference by electric and gas utility accountants is evidenced by the fact that for the most recent one held in Louisville, Kentucky, April 17-18-19, the number of registrants was 778, exceeding by 63 the attendance at the April, 1949, conference in Detroit, which in turn was larger in registered attendance than any prior conference.

However, the conference does not rest its claims for contributions to the two industries, closely allied at least in their accounting problems, upon mere numbers. Its diversified program offers something for every electric and gas utility accountant no matter how highly specialized his field.

At this year's conference, emphasis was placed on non-recorded discussion and many of the scheduled papers or reports were presented orally in outline only in order to leave more time for questions or comments from the floor, although most of them had been prepared beforehand in typed form and were available for distribution. All registrants will receive a complete set of addresses, papers, and reports, and non-registrants may obtain such sets at a nominal fee upon application to EEI or AGA.

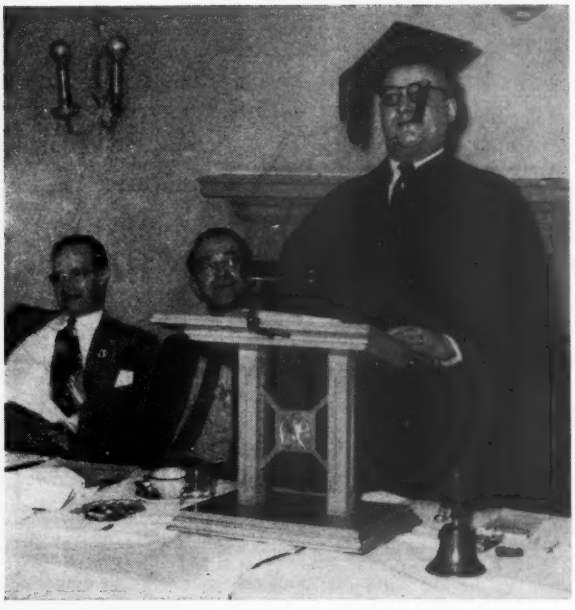
In a brief account it is impossible to do justice to the many excellent papers and reports, some illustrated by slides or charts and one or two in the form of action pictures. Only the high spots can be noted.

General Session

As usual, the conference opened with a General Session with W. H. Zimmer, The Cincinnati Gas & Electric Co., chairman of the EEI Accounting Executive Committee, and J. H. W. Roper, Washington Gas Light Co., chairman of the AGA Accounting Section, presiding jointly. A graceful address of welcome by J. J. McKenna, vice president, Louisville Gas & Electric Co., was followed by remarks from officers of EEI and AGA. Hugh H. Cuthrell, president of American Gas Association, was unfortunately unable to speak as he had expected on "Management's Right Arm," but his prepared address was presented by George F. Mitchell, president of The Peoples Gas Light and Coke Co., and vice president of the American Gas Association. Mr. Cuthrell's paper stressed the growing importance of the accountant's function in coordinating public utility management.

Colonel H. S. Bennion, vice president and managing director of EEI, was to have given a message from Edison Electric Institute headquarters, but at the last moment found himself unable to attend the conference. His place was taken by A. B. Morgan, assistant managing director of the Institute, who in a brief but aptly worded talk stressed the responsibility of the accountant in an increasingly complex economic environment to make decisions which will favor efficient management. With narrow profit margins, mistakes in the accounting department, which once meant only a relatively small loss, may now be critical.

J. W. H. Roper, Washington Gas Light Co. Chairman, AGA Accounting Section (left), with William H. Zimmer, The Cincinnati Gas & Electric Company, shown at the first General Session of the Joint AGA-EEI Accounting Conference at which they presided jointly.



Glenn Ray, Indianapolis Power & Light Co., presiding at "The Erudite College of Credit Knowledge," a feature of the Customer Collections Luncheon.

Professor E. Wight Bakke, director of Labor Management Center, Yale University, followed with a forthright talk on "Collective Bargaining in a Competitive Economy." Accountants, he said, are not usually at their best across the bargaining table from union spokesmen because accountants are accustomed to accepting and relying on facts as duly recorded, whereas the bargaining process is essentially a struggle for power and the emotional connotation of facts rather than their bare content is what counts most. However, accountants have a significant part to play in presenting financial facts in a way to minimize misunderstanding or intentional distortion. Professor Bakke's talk, although dealing with a subject in which, until recently, accountants felt only indirect interest, received many favorable comments.

Personnel Placement

"'Yardsticks' in Personnel Placement," designated on the program as a report of the joint Accounting Employee Relations Committee under the chairmanship of W. E. Sturm, West Penn Power Co., turned out to be a film demonstration arranged by W. D. Sweetman, The Peoples Gas Light & Coke Co., Chicago, of procedures in interviewing and selecting applicants for office employment. An excellent sound color movie enacted by employees of the Chicago company dramatized the points to be observed during an interview in judging an applicant's attitudes. The audience was invited to note, on cards passed out at the outset of the showing, their judgment of the applicants' qualifications for specified office positions and compare them with the final selections by the company's personnel staff.

Merryle Stanley Rukeyser, the last speaker on the Monday afternoon program, nationally known as a writer on economic subjects, in a talk entitled "What's Ahead for the U.S.A.," vigorously scored the federal government for its neglect of sound accounting methods and economic facts. The accounting profession, he said, can do much to base national policies on factual judgments and to avert decisions determined by emotion, sometimes approaching hysteria, which too often create the national policy of the present government.

The session closed with another sound color film not on the program. This was the Columbia Gas System's movie, "The Toughest Inch," showing vividly the enormous difficulties that were overcome in the building of a 262-mile natural gas pipe line from West Virginia to the Washington, D. C., area.

Seven Parallel Sessions

Tuesday morning saw the conference split into seven parallel sessions: customer activities (covering subjects of interest to those engaged in various phases of the work of a customer accounting department) general accounting; plant accounting; depreciation accounting; internal auditing; and the handling of materials and supplies by gas utilities. EEI has no committee dealing primarily with accounting for materials and supplies, although the Institute has a general committee on purchasing and stores which studies and reports on operational aspects of stores management.

The Customer Activities group had for its joint chairmen J. Douglas Elliott, The Detroit Edison Co., chairman of the EEI Customer Activities Committee, and E. R. Eberle, Public Service Electric and Gas Co., AGA's coordinator of customer activities. Its first subject was "Billing of Large Commercial and Industrial Accounts," ably discussed by M. J. Walsh, Consolidated Edison Co. of New York, Inc., who pointed out the practical criteria for deciding between routine and special handling of large accounts. A. W. Merchant, Michigan Consolidated Gas Co., described the work to date of a joint project committee engaged in compiling a "System Directory of Customer Accounting Activities" which will make possible a comparison of the more important practices and procedures in the customer accounting field followed by a considerable number of electric and gas utilities. Walter R. Keagy, vice president, The Cincinnati Gas & Electric Co., presented his idea of "The Acid Test of Good Customer Relations," based on the support given to a company's management by its customers when it is under unfair attack.

The session closed with a panel discussion on credit and collection problems. H. S. Hahn, The Ohio Fuel Gas Co., was the moderator and the panel members were: F. J. Flom, The Detroit Edison Co.; C. L. Havener, Consolidated Edison Co. of New York, Inc.; R. B. Mitchell, The Peoples Gas Light and Coke Co., and O. B. Cook, Battle Creek Gas Co. Discussion was based on a summary of a survey made of 71 electric and gas utility companies and most of it emphasized the importance of good collection practice in building customer good will. However, the discussion brought out a rather widespread belief that the industries have not realized the full possibilities of treating customer collection problems less as routine and more as individual human relations cases. A good many listeners undoubtedly took home suggestions for improving their own methods.

General Accounting

The General Accounting Committees, with L. C. Provencher, The Detroit Edison Co., EEI acting chairman, and S. P. Osborn, Texas Eastern Transmission Corp., AGA chairman, presiding, had three subjects for their Tuesday morning session. The first of these, "Treatment of Overhead and Indirect Costs," presented by Emanuel Toder, Consolidated Telegraph & Electrical Subway Co., was stated to be a "progress report" by a joint subcommittee engaged in a study of the problems involved in the capitalization of overhead costs. No

inal conclusions were drawn, but the broad outline of the problems involved was sketched and the general direction of the study was indicated.

Second was a discussion of the differences between the concept of "net income" as customarily developed from a company's books and shown in its reports to stockholders and others, and the legal concept of "net income" subject to federal income tax as defined by statute and interpreted by the Bureau of Internal Revenue. That troublesome differences between the two concepts exist is well known to all accountants within and without the public utility field. However, the discussion presented by W. G. Betsch, Public Service Electric and Gas Co., gave some novel slants to the topic.

Records Control

The session closed with a talk entitled "A New Look at an Old Problem —Records Control," by Emmett J. Leahy, director of the National Records Management Council, New York, wherein he gave encouragement to those who are wrestling with the almost unmanageable accumulation of unnecessary records. The "cancerous" growth of records, Mr. Leahy said, requires drastic surgery. In fifty years the proportion of clerical and office workers, mostly engaged directly or indirectly in the production of records, to workers directly producing goods and services, has increased from 1 in 30 to 1 in 8. Something like 90 per cent of office records are never referred to. The most obvious remedy lies in scientific screening of all records and prompt destruction of those not necessary. Mr. Leahy congratulated the electric and gas industries on the good work to that end already accomplished by their committees on preservation and destruction of records. He believed our industries to be well in advance of most others in their awareness of the problem and in organized attempts to meet it.

The joint session on Tuesday morning of the two Plant Accounting Committees with F. E. Drapalik, Union Electric Co. of Missouri, and H. F. Carey, Long Island Lighting Co., presiding respectively as EEI and AGA chairmen, was devoted to two papers or reports, one presented by F. W. Ross, Pennsylvania Power and Light Co., on "Field Verification of Property Record Units," the other by W. G. Pilgrim, The Peoples Gas Light and Coke Co., on "Work Order Procedure for Inside Plant." Both offered practical suggestions for improving and simplifying plant accounting practices. The session closed with a question and answer period, giving an opportunity for an informal exchange of ideas and experiences on all phases of plant accounting. The discussion leader was H. J. Rustad, Duquesne Light Co.

Taxation Accounting

The two committees on Tax Accounting, led by C. J. Trudeau, Wisconsin Electric Power Co., chairman of the EEI committee, and H. W. Ziethen, The Peoples Gas Light and Coke Co., chairman of the AGA committee, held an open session Tuesday morning to which anyone interested was welcome. The session began with a panel discussion of the function and operation of corporate tax departments, with special reference to electric and gas utilities. C. F. McCarthy, tax manager of Arthur Andersen and Co., introduced the subject and acted as moderator for a panel which included T. E. Hurns, The Detroit Edison Co., W. L. Payne, Stone and Webster Service Corp., and H. W. Ziethen. Many ideas for improving the organization and operation of a company's tax department were reviewed.

The session closed with a report by W. S. Alt, Union Electric Co. of Missouri, on recent significant court decisions on tax questions, the kind of excellent summary which the tax accounting group has come to expect from him. Mr. Alt's report was followed by a question and answer period.

The Depreciation Accounting Committee of the EEI held its first session Tuesday morning with Alex. E. Bauhan, Public Service Electric and Gas Co., presiding. Methods for estimating salvage and removal costs, an element in depreciation accounting which has been given too little consideration, were ably presented by M. J. Gonzales, Consolidated Edison Co. of New York, Inc. "A Depreciation Case History," the illuminating story of a long controversy between a utility management and its state regulatory authority over depreciation accounting standards and their relation to a rate base, was vigorously set forth by P. LeRoy Griffith, of Gilbert Associates, Inc. The result of a study undertaken by a subcommittee of the actual practices of a number of representative companies in determining their depreciation charges and reserves was presented by W. J. Foster, Jr., New York State Electric and Gas Corp., chairman of the subcommittee. The study revealed some surprising variations in methods and results considering the vast amount of thinking and writing that has been devoted to the subject.

Internal Auditing

The committees on Internal Auditing, which always attract large and lively groups, met Tuesday morning with H. R. Symes, The Detroit Edison Co., EEI chairman, and J. K. Laurentz, The Brooklyn Union Gas Co., AGA chairman, jointly presiding. The session was devoted to the accounting control and audit procedure for materials and supplies. General discussion was led by P. J. Buzanga, Consolidated Edison Co. of New York, Inc. Specific phases covered and their respective spokesmen were: "Spare Emergency Parts," J. B. Schmid, Long Island Lighting Co.;

J. Douglas Elliott, The Detroit Edison Co., Chairman, EEI Customer Activities Committee (left), and E. R. Eberle, Public Service Electric & Gas Co., Coordinator, AGA Customer Activities Group, Joint Chairmen of the Customer Activities Meetings.

"Merchandise and Appliance Service Parts," J. C. Meyers, Union Electric Co. of Missouri; "General Materials and Supplies," W. T. Hofstetter, The Peoples Gas Light and Coke Co."; "Salvage and Scrap Material," A. I. Russak, The Cincinnati Gas and Electric Co.

Luncheon Conferences

Conferees continued their discussions during the Tuesday noon hour through four luncheon conferences conducted respectively by the General Activities, Customer Accounting, Customer Collections, and Customer Relations groups.

The General Activities group luncheon was presided over by R. H. Smith, The Cleveland Electric Illuminating Co., vice chairman of EEI Accounting Division Executive Committee, and B. S. Rodey, Jr., Consolidated Edison Co. of New York, Inc., general activities coordinator of AGA. The speaker was Richard L. Forster, Ebasco Services Inc., who spoke on "Clerical Work Measurements," a subject of great interest to all accountants seeking for improved efficiency and economy in office work. Mr. Forster and his associates have devoted a great deal of study to this subject and have come to the conclusion that on manual clerical jobs where quantitative standards are practical, normal average production should be about 75 per cent of a theoretically perfect standard; but that in fact average production is nearly 50 per cent of standard and often as low as 30 per cent. Fair application of clerical work measurements can, therefore, bring about a vast improvement in production and a corresponding reduction in the cost of office work.

Customer Activities Meetings

The Customer Activities luncheon meetings on Tuesday, as has been the custom, continued into the afternoon in three groups — Customer Accounting, Customer Collections, and Customer Relations. At the first, with R. B. McCrorey, Georgia Power Co., and G. E. Curtis, Boston Consolidated Gas Co., jointly presiding as EEI and AGA chairmen respectively, the feature was a "question box," subtitled "A Swapshop of Knowledge." Questions which had been previously framed by individuals in search of help on some puzzling point and dropped into conveniently located boxes, were taken up and referred to an "expert" in that particular field, with F. W. Phelps, Union Electric Co. of Missouri, acting as discussion leader.

At the Customer Collections luncheon were S. C. Grant, Philadelphia Electric Co., EEI, and O. B. Cook, Battle Creek Gas Company, AGA, presided, a somewhat similar function was performed by the "Erudite College of Credit Knowledge." Here Glenn Ray, Indianapolis Power & Light Company, in academic cap and gown with a long cigar giving a further touch of distinction, and aided by C. W. Tobey, The East Ohio Gas Co. and W. E. Travis, The Cleveland Electric Illuminating Co., endeavored, with what the knowledge seekers appeared to think considerable success, to find answers to a number of perplexing problems in the credit and collection field.

"Pet Peeves"

The Customer Relations luncheon was under the leadership of Louis Stoecker, Public Service Electric and Gas Co., EEI, and W. S. Frick, The East Ohio Gas Co., AGA. Their subject was "Customer Service Irritations and Their Cures," subtitled "Pet Peeves," with E. M. Alt, Northern Indiana Public Service Co. as discussion leader. If all company managements could take to heart and apply the ingenious ideas for keeping even unreasonable customers satisfied which were brought out at this meeting, there is no doubt that customer relations with electric and gas utilities could be immensely improved and agitation for public ownership and operation would have little chance for success.

Other groups holding Tuesday afternoon sessions were: General Accounting, Plant Accounting, Depreciation Accounting, Internal Auditing, and Materials and Supplies (AGA). The two Taxation Committees also held a joint session on Tuesday afternoon for committee members only, at which technical problems in tax accounting were informally discussed.

The General Accounting session on Tuesday afternoon, with L. C. Provencher and S. P. Osborn again presiding, offered two stimulating papers, the first presented by J. B. Jeming, consultant, New York, describing the application of electronics to business accounting, pointing out how the development of electronic devices in business machines has immensely shortened the amount of time required for a great many kinds of accounting records. The "electronic memory," which accumulates figures with unbelievable rapidity and stores them for use when needed, can be a tremendous saver of time and labor in many routines involving large numbers of numeric quantities.

"Bringing Government Back Home"

H. H. Scaff, Ebasco Services Inc. was scheduled to speak on "Recen Trends in Public Utility Financing His prepared paper on this subject available and will be included in th "Proceedings" of the conference. How ever, he elected instead to talk on a sub ject which he believes to be of great im portance, not only to public utility ac countants, but to the entire nation. Un der the title "Bringing Governmen Back Home," he described a plan, revo lutionary in its effects, which is begin ning to receive support from a larg number of thoughtful citizens, for curb ing the growing tendency toward cen tralization of government powers i Washington and restoring to state an local authorities responsibility for loca affairs. This reform is to be accomplishe primarily through a redistribution o taxing powers limiting those of the fed eral government and reserving wholly state and local governments certain are for raising revenue. His talk was illu trated by charts whose trends, graph cally illustrated, are ominous for tho who believe that we have been proceed ing too fast and too far toward an a powerful federal government abo which even Hamilton might have be dubious and which Jefferson certain would have abhorred.

Depreciation Regulations

The Tuesday afternoon session of t EEI Depreciation Committee under chairman, Alex. E. Bauhan, heard a view of the "Depreciation Regulatio of Various Federal Commissions" pr sented by C. T. Dwight, The Hartfo Electric Light Co., which summari effectively the development of requi ments in federal regulatory agencies depreciation accounting. Maurice Scharff, consultant, New York, gave critical resume of "Important Court a Commission Decisions on Depreciatio which brings into useful perspective t growth of legal thinking on depreciati accounting. J. W. Balet, Consolidat Edison Co. of New York, Inc., brou out the significance to electric and g utility accountants of the "Differe Between Income Tax and Book D preciation."

The Plant Accounting Committe again with F. E. Drapalik and H. Carey presiding, devoted their Tues afternoon session to suggestions i

"Simplification of Records and Accounting," offered by C. M. Smith, The West Penn Electric Co., Inc., and to certain "Aspects of Betterment Accounting and Retirement Pricing" presented by E. D. King, The Detroit Edison Co.

Internal Auditing

The Internal Auditing group held a well-attended session on Tuesday afternoon with the same presiding officers as at the morning session. "The Scope and Latitude of Public Utility Auditing" was presented by H. A. Martinson, Boston Consolidated Gas Co. "Verification, Investigation and Appraisal Work by the Internal Auditor" was the subject of a paper presented by W. T. Hamilton, The Cleveland Electric Illuminating Co., in which the growing importance of this phase of the internal auditor's responsibility was emphasized. W. L. Schoonmaker, Public Service Electric and Gas Co., spoke on "Relationship Between Systems and Internal Auditing," with H. R. Symes, The Detroit Edison Co., conducting the discussion. The session concluded with a talk entitled "The Public Accountant Looks to the Internal Auditor," by B. F. Jackson, partner, Price, Waterhouse and Co., who showed the extent to which the independent auditor could and should depend on the work of the internal auditor.

The Materials and Supplies Committee of AGA with L. G. Wiseley again presiding, devoted Tuesday afternoon to the subject of "Standard Packaging." The EEI Committee on Purchasing and Stores has spent a vast amount of time in the development of standard packaging for line hardware alone and has been encouraged by the results of its efforts to seek further economies through standard packaging of other classes of material. The AGA's Material and Supplies Committee has been working along similar lines, which were described Tuesday afternoon, by L. R. Michelsen, The Peoples Gas Light and Coke Co., and G. B. Herr, The Peoples Natural Gas Co. The presentations were augmented by a display of standard packages proposed or already agreed upon for certain types of material.

"Bull Session"

Most of the Tuesday afternoon sessions were ended at 3 p.m. to permit attendants to participate in a "Bull Session" from 3 to 5. This is a new and apparently highly successful feature of these accounting conferences. It permits those who desire to seek out individuals from other companies and areas and exchange with them ideas and experiences in any field of interest in an atmosphere of complete informality, optionally aided by refreshment service. Certain of such fields where discussion was expected to be most active were assigned special tables designated by placards. A substantial number of conference attendants took advantage of the opportunity this offered, and the "Bull Session" seems likely to be a permanent feature of future conferences.

On Tuesday evening the entire conference engaged in an hour or two of relaxation at a dinner, with a record number of 809 registered conference members and guests. The dinner was interspersed with music, both instrumental and vocal including some harmony singing by a few of the more talented attending the conference.

The last day of the conference, Wednesday, had a full morning. Three group sessions, after an hour or so of separate meetings, came together in a final general session which concluded the conference.

General Activities Group

The General Activities Group, with B. S. Rodey, Jr., and R. H. Smith alternating as chairmen, heard two outstanding speakers. First, Dr. J. Rhoads Foster, consulting economist, and lecturer on public utilities, New York University, presented a thoughtful and stimulating paper on "The Significance of Utility Accounting in Rate Making." In this he stressed the growing importance attached by rate making authorities to transactions "accounted for" by recorded entries and the possibility for distortion of economic facts by the tendency to ignore the difference between the dollar of today and the dollar of past periods as a measure of value. He deplored the undue emphasis placed upon recorded dollars and the neglect of economic value measured by dollars adjusted for differences in purchasing power. For this he took to task both government authority and utility management.

Dr. Foster was followed by R. M. Besse, vice president and general counsel of The Cleveland Electric Illuminating Co., who discussed with unusual and gratifying clarity the old and painful question of the "Deductibility of Depreciation Reserves for Rate Base Purposes." With simple and unerring logic he pointed out the fallacies in accepting the "original cost less depreciation" formula as the only basis for determining reasonable and necessary income of regulated utilities.

The Customer Activities group on Wednesday morning, E. R. Eberle and J. D. Elliott again presiding, first heard L. R. Quad, Public Service Electric and Gas Co., talk on "Collections—Tailored to Your Measure." This was an exposition of how the Public Service Company had brought down the cost of collections during the last ten years, reduced its force engaged in this work from 530 employees in 1939 to 168 in 1950, while at the same time attaining its lowest percentage in 47 years of delinquent accounts outstanding.

A useful summary of the practices of 46 utilities in "Reconcilement of Meters Billed" dealt with controls in the billing of active meters and comparisons with meter history records. This was presented by R. O. Jackson, Gulf States Utilities Co.

The session closed with a progress report on "Training Employees to Meet the Public," with particular reference to the use of manuals and training films. A list of films available for this purpose was given. The report was presented by C. J. Berner, Wisconsin Electric Power Co.

The Materials and Supplies Committee on Wednesday morning heard a discussion of "Factors Initiating Purchase Requisitions," presented by J. C. Sims, The Brooklyn Union Gas Co., before adjourning to participate in the last general session.

Work Simplification

All groups came together to hear "Cost Reduction Through Work Simplification," an exceptionally well delivered talk illustrated by charts and amusing cartoons, given by J. R. Crowley, supervisor, Methods Training Section, U. S. Gypsum Co. Cost reduction, of course, is at this time the subject to which electric and gas utility management is turning a large part of its energies. Mr. Crowley frankly described the failures as well as the successes of his management in its attempts at greater efficiency through analysis of routines and consequent simplification of procedures. His talk offered some thought-provoking leads for other company managements.

Most of the participants in the conference started their return trip after the last general session on Wednesday morn-

(*Continued on page* 166)

Young Men of Indiana Utilities Study Industry Public Relations at Record Conference

"SELL yourself, sell your company, and sell your company's product" was the theme of the 10th annual Young Men's Utility Conference, held April 18 and 19 in Ipalco Hall, recreation center of the Indianapolis Power & Light Co. in Indianapolis, Ind., and sponsored by the Indiana Electric Association.

A record attendance of 268 young men, representing all the major electric utility companies in Indiana, heard themselves described as individual public relations representatives of their companies by speakers at the two-day conference.

Program Highlights

Among the highlights of the program was a panel discussion held April 19 on "The Employee's Responsibility for Public Relations," with Ralph J. Wegener, president of the Ipalco Young Men's Forum of the Indianapolis Power & Light Co., as moderator.

Pointing out that electricity today not only is a convenience, but a necessity, Mr. Wegener stated that the electric utility company must be concerned with public relations because the company, in a sense, is a citizen of the community, with responsibilities and duties to perform.

"It must sell itself; convince the community that it is a good neighbor, a promoter of community welfare, a leader in social, economic and residential development. It must prove itself to be a good, efficient, fair dealing business, ready to serve and help society.

The Employees Are the Company

"The electric company," Mr. Wegener said, "can accomplish its objectives only through the efforts of its individual employees . . . the officers, supervisors, stenographers, clerks, linemen and plant personnel. . . . The employees are the company. No matter what his duties might be, his actions and words are interpreted as being the policy of the company."

First speaker on the panel, James Zeiler, commercial department, Indiana & Michigan Electric Co., declared that if employees are to accept and live up to a responsibility for public relations, they will have to be given the tools and instruction in their use.

George Toole, commercial department, Southern Indiana Gas & Electric Co., pointed out good and bad examples of employees' public relations.

Donald A. Linton, engineering department of Public Service Co. of Indiana, Inc., pointed out that the utility engineer, while he generally does not have much contact with the public, does have direct opportunities to make favorable public impressions. Examples included acquisition of right-of-way to support new construction for system expansion; surveys of property after it is acquired, and construction jobs in the field, all of which attract public interest.

Last speaker on the panel, Andrew L. Hotchkiss, accounting department, Northern Indiana Public Service Co., stated that an employee who has a desire to know his or her company—its past history—its future plans—statistical facts pertaining to operation, and so forth—is a definite asset in promoting proper public relations and good will.

"The Customer Is Our Job"

"A customer," Mr. Hotchkiss said, "is the most important person ever to enter this place of business . . . in person . . . by mail . . . or by telephone. A customer is not dependent on us . . . we are dependent on him. A customer is not an interruption to our job . . . he is the purpose of it. A customer is not an outsider . . . he is our business. A customer is not a cold statistic. He is a flesh and blood human with feelings and emotions like our own. A customer is a person who . . . brings his needs and expects us to handle them . . . profitably . . . both to himself . . . and to ourselves."

At the opening session Tuesday afternoon, April 18, P. W. Ross, vice president and assistant to the president of the Indianapolis Power & Light Co., welcomed the delegates.

Speakers at this session included: C. V. Sorenson, vice president of the Indiana Electric Association and vice president of the Indiana & Michigan Electric Co.; E. F. Hauser, secretary-treasurer of the Indiana Electric Association, speaking on "The Indiana Power System"; and C. N. Phillips of New York, director of research for Ebasco Services Inc.

Oppose Unsound Government Action

Another highlight of the program was an address entitled "What Can One Man Do?," by Ralph M. Besse, vice president and general counsel for The Cleveland Electric Illuminating Company. Mr. Besse explained the extent to which the principles of the Communist Manifesto of Karl Marx and Friedrich Engels have, in the space of 100 years, been established in the United States and urged his listeners to belong to a political party and to support that party, to contact their representatives in government, and "to have the guts to oppose unsound action by the government even though it personally benefits you."

John Ave, district manager, Public Service Co. of Indiana, Inc., spoke on the subject "Our Place in Community Welfare."

John H. K. Shannahan of the Indiana & Michigan Electric Company, discussed the necessity for selling; and George S. Arnold, Public Service Co. of Indiana, Inc., talked on "Making Our Own Tomorrow" at the Tuesday morning session.

A safety motion picture, "The Miracle of Paradise Valley," was shown by Paul Squire of the Southern Indiana Gas & Electric Co.

Concluding Session

Speakers at the afternoon session, concluding the conference, were Professor R. M. Whaley of Purdue University, whose subject was "Modern Physics Friend or Foe," and Russell I. Richardson, Lebanon attorney, who spoke on "The Plight of Britain." These were two of the outstanding addresses delivered during the Conference.

Twenty persons participated in the Conference program, either as Presiding Officers at the various sessions or as Speakers. Of that number thirteen were definitely classified as young men associated with the electric industry through their connections with member companies of the Indiana Electric Association

Deductibility of Depreciation Reserves for Rate Base Purposes

By Ralph M. Besse

Vice President and General Counsel, The Cleveland Electric Illuminating Company

An address before the National Conference of Electric and Gas Utility Accountants, Louisville, Ky., April 17-19, 1950

EVEN though the problem of the depreciation deduction in rate making is almost as old as the history of rate making, I am sure many of you will agree with me that it is forever a new problem to the utilities and regulatory bodies.

As Harry M. Miller, President of the National Association of Railroad and Utility Commissioners, told the New York Society of Security Analysts last fall:

"More confusion has arisen with respect to, or has been injected into, regulatory thinking with regard to depreciation in rate making than seems possible.

"In rate making, the deduction has run the gamut from

1. no deduction at all, to
2. deduction of an engineering determination,
3. deduction of the accumulated accounting reserve for depreciation, and
4. to the deduction of a computed amount which it is alleged the accountants *should* have accumulated if they had known what they were doing.

"The pendulum has indeed swung far, and the process hasn't been free from political influences."

What is Depreciation?

Even new definitions of depreciation have been coined to accommodate the purposes of those fostering a particular brand of rate making. The most common of these is that depreciation is the expiration of service life, measurable on a definite time schedule, usually by means of mortality curves. Obviously if this is true a depreciation reserve would measure true depreciation if the annual accruals were correct. The definition was coined for the purpose of drawing that conclusion. In practice the method would tend to put depreciation on a generalized past physical replacement basis and would give little or no tolerance for future wear and tear, functional depreciation, and obsolescence.

Let us compare this definition with the basic definition of depreciation. Merriam-Webster defines depreciation as a decrease in *value* and specifically as a decline in *value* of an asset due to such causes as wear and tear, obsolescence, etc.

This definition identifies depreciation as a loss in *value* and as an economic fact. While accountants must, or should, make provision for its occurrence, its measurement is a concrete economic process. It can be determined as a physical or economic fact quite without regard to anything which may have been done about providing for it on the books.

Distorted Thinking

Much of the thinking with respect to depreciation has been distorted by confusion of depreciation in its economic sense with depreciation in its accounting sense. The accountants have labeled as "depreciation" what clearly is a "*provision* for depreciation" in order to conserve words in our financial statements. I doubt if the so-called "accounting sense" of depreciation is much more deep rooted than this. But the very brevity of terms has probably added to the confusion.

In appraising where we are today in the matter of the depreciation deduction in rate making, we ought to review just briefly some of the high spots of past practices and trends. In Smyth vs. Ames,[1] decided in 1898, the fair value formula evolved by the court made no special reference to depreciation. In some of the early cases it was not clearly established whether any depreciation should be deducted at all.

The Knoxville Case

In 1909 in the Knoxville Water Company case[2] it was definitely determined that depreciation *should* be deducted, and that actual depreciation as determined by investigation should be considered for the purpose of a rate base rather than past accounting provisions.

Then followed a period of 25 years in which the Supreme Court quite consistently treated the matter of the depreciation deduction as a physical and economic fact determinable by competent valuation engineers.

But—during this period, the engineers took some very substantial liberties with what we would now consider to be the realities. Many were the instances of 50 to 75-year-old office buildings considered in 98 per cent condition. Overall condition of total utility property was seldom conceded to be less than 90 per cent. Functional depreciation and obsolescence were either not well understood or else were often ignored or minimized as far as deduction was concerned, as in 1924 in the first Pacific Gas & Electric case.[3]

In 1926 in McCardle vs. Indianapolis Water Company[4] the observed depreciation claimed by the company was 6 per cent, and the cost required to restore the property to its condition when first installed was estimated at 3½ per cent.

Supreme Court Views

The Supreme Court, being cognizant of these practices as early as 1909, announced the so-called equitable theory with respect to the deduction of depreciation in the determination of a rate base. The Court said:

". . . It was obligatory upon the (company) to show that no part of the money raised to pay for depreciation was added to capital, upon which a return was to be made to stockholders in the way of dividends for the future. It cannot be left to conjecture, but the burden rests with the (company) to show it. It certainly was not proper for the (company) to take the money, or any portion of it, which it received as a result of the rates under which it was operating, and so to use it, or any part of it, as to permit the company to add it to its capital account, upon which it was paying dividends to shareholders. If that were allowable, it would be collecting money to pay for depreciation of the property, and, having collected it, to use it in another way, upon which the (company) would obtain a return and distribute it to its stockholders. That it was right to raise more money to pay for depreciation than was actually disbursed for the particular year there can be no doubt,

[1] 169 U. S. 466 (1898)
[2] 212 U. S. 1 (1909)
[3] 265 U. S. 403 (1924)
[4] 272 U. S. 400 (1926)

for a reserve is necessary in any business of this kind, and so it might accumulate, but to raise more than money enough for the purpose and place the balance to the credit of capital upon which to pay dividends cannot be proper treatment . . ." (5)

However, claims were often made for high rates of annual accrual, and the accumulated accounting reserve was often of a *much* higher percentage than that claimed as a deduction for depreciation in rate making and usually included charges for functional depreciation and obsolescence.

The shortsightedness of the utilities in this period in attempting to claim too much is unquestionably responsible in substantial measure for what has happened since.

The Lindheimer Case

The culmination of this era was in 1934 in the Lindheimer case[6] when the spread between the amount of depreciation claimed as a deduction in the determination of the rate base and the amount of the depreciation reserve was unusually wide. The Court pointed specifically to the need for correlation between the actual depreciation and the accrual for depreciation, and disallowed the annual accrual in part. It would have been just as logical to have increased the depreciation deduction. In any event, the resulting decision in the case is generally recognized as marking the beginning of a period in which the amount of the depreciation reserve could be considered in determining the deduction for depreciation, from book cost as well as reproduction cost, with the blessing of the Supreme Court.

Regulatory Commissions

During this period of the 1930's quite a number of utilities capitulated to the thinking of an increasing number of commissions calling for the use of cost type rate bases involving the deduction of the depreciation reserve or reserve requirement in rate making. For low reserve companies the deduction was not particularly obnoxious, at least until later when attempts were made in some jurisdictions to use a reconstructed reserve.

Only 10 years after the Lindheimer case, the Supreme Court decided the Hope Natural Gas case.[7] Reproduction cost new was thrown out the window in favor of a synthetic concept of value. Approval was given to the deduction of an accounting determination of the depreciation from original cost of plant. This accelerated the trend toward a cost type of rate base. The utilities were handicapped in their efforts to stem the tide. There was a war in progress with its attendant price controls, and the price levels of the period were relatively stable.

The result was that normally the actual deduction of depreciation for rate base purposes was either the company's accrued reserve or an arbitrary "requirement" based on straight-line methods.

The picture has changed since the war. We are in a period of greatly inflated prices accompanied by vast expansion of depreciable plant. It is, therefore, important that we re-examine the practice of deducting depreciation reserves in the determination of utility rate bases.

I assume, as a premise, that a depreciation reserve which has been accrued on *any* kind of amortization basis does not purport to measure the actual depreciation in the property as of any given time. The accumulation of the reserve is an accounting expedient to spread the cost of the property evenly over a period of years estimated to equal the life of the property involved.

Other Grounds of Defense

It follows that the deduction of the reserve as a measure of depreciation or in lieu of an actual measurement of depreciation must be defended on other grounds. Two other grounds have been advanced; namely, simplicity of administration and equity to the rate payers.

As Mr. Miller has said:

"Simplicity of administration has been over-emphasized in regulation. But simplicity is a weak defense for any method which may impair property rights."

Simplicity has been generally applied to the disadvantage of the utilities, and therefore has been politically popular.

If one of you were to lose your eyesight through the fault of another, you would of course be entitled to compensation for this loss. How would you measure it? Is the fact that the measurement of such damage is extremely complex and difficult a justification for a law providing that loss of eyesight shall in all cases be valued by a statutory formula depending on remaining life expectancy? This would simplify the administration of justice tremendously. No one here, however, would approve it. Yet a comparable rule has been adopted, for the sake of simplicity, in rate making.

What then of the equity argument? It is a basic rule of equity long since established that if the equities for one party are to be considered, then the equities for both parties must be considered in order that there may be a balancing of equities.

Customer Equity

The equity in favor of the customer which is used to support the deduction of the depreciation reserve is that the customer has supplied the money for the accruals through the medium of rates. Thus, the utility ought not to be permitted to pyramid earnings from returns on property constructed from funds collected from customers in advance of need. Usually this is all that is said about the equity of deducting a depreciation reserve. It was all that was said in the Cumberland Telephone case[8] It is a correct statement as far as it goes. But there are several other equities which must be considered if this decision is to be made on an equitable basis.

The first counterbalancing equity to keep in mind is the fact that depreciation reserve funds are not always fully invested in property. During a period of rapid expansion, such as the present, they do tend to be fully invested, but during static periods the investments of such funds tend to lag far behind their collection.

Obviously, if the utility has not actually invested the funds in property, it should not be charged with earnings on the fund. It follows that the deduction of the depreciation reserve, to the extent that such reserve is not fully invested, amounts to nothing less than confiscation of the company's property.

Fund Investment

Such funds not economically invested in the property may be invested in government bonds or deposited in a bank. To the extent that these funds are invested at lower rates than the company's overall rate of return, an inequity exists when the full amount of the depreciation reserve is deducted.

I would like to point out that the "deductors" are not consistent. If they were, they would allow actual working

[5] Louisiana R.R. Comm. v. Cumberland Tel. Co., 212 U.S. 414, 424 (1909)
[6] 292 U. S. 151 (1934)
[7] 320 U. S. 591 (1944)
[8] 212 U. S. 414, 424 (1909)

capital to be included in the rate base instead of working capital determined by a formula. When there is working capital in excess of the amount allowed by the formula, it is often an indication that depreciation funds have not been invested. If the utility is to be charged with the depreciation reserve, it should be credited with the cash investment as well as a plant investment. Otherwise, the result is, heads the customer wins and tails the utility loses. That is not equity.

A second counterbalancing equity which should be considered is the fact that a utility plant does not always and continuously earn a full rate of return. This is particularly true in a period of rising costs when rate increases become necessary. It is also true in depression periods when earnings fall off.

Depreciation Accrual

If the actual rate of return is less than the fair rate of return, then to the extent of such deficiency the *customers* are not providing the depreciation accruals. The portion of the depreciation accrual equal to the deficiency in return is, in such a case, provided by the stockholders, or if the situation is bad enough by the debt security holders. If the situation is even worse, it is not provided at all, but merely entered on the books of the company. There surely is no equity in deducting the portion of a reserve not provided by rate payers.

Next, let us consider who should be compensated for the risk involved in the operation of property built with depreciation reserve funds. It seems clear that the rate payer takes no capital risk. His obligation to pay for property worn out for his use is complete when he pays for his service. His loss, if any, is only the use of his money during the period between its collection and the retirement of the property involved.

If the whole utility plant were wiped out, service discontinued, and some other service substituted, the rate payer has lost nothing. But the company takes the portion of rate payments which represent depreciation accrual and invests these in property to reimburse itself for the property which was worn out. It has no other legal option. It cannot withdraw depreciation funds from the operation of the business. If the operation of the property in which such funds are invested does not reimburse the company, then it is the company which loses.

In other words, the company takes all of the risk involved in the investment of depreciation reserve funds. Why, then, should a full rate of return, in effect, be allowed to the rate payer when a substantial portion of a fair rate of return is to cover the risk involved? The deduction of the full reserve has the effect of giving to the rate payer a return allowance which includes payment for risk he does not take. In fact, it gives him priority over the bondholders and even over any current obligations of the company. This is not equity.

Deductibility is often argued on the assumption that the depreciation reserve reflects or even represents the return of capital to the investor. That this argument has no basis is obvious since the reserve is not returned to the investor. It must be invested in the business in order that the purpose of its existence be accomplished.

In this connection we should consider the fact that an industry itself may become obsolete. I am not speaking of mechanical obsolescence, such as accrues in a generator or any other piece of equipment. I am speaking of commercial obsolescence which makes it impossible to earn even with the best of equipment.

Commercial Obsolescence

You all know what happened to the interurban transit companies. You know what is happening to the urban transit companies. You know what happened to some of our railroads in the depression of the 1930's. You know what free public bridges did to private ferry boats. You know what happened to canal businesses. You know what happened to packet steam boats. These are all examples of commercial obsolescence of utilities. It could happen to the prosperous utilities of today.

If it does happen, then there will have been *no* recovery to utility investors for capital exhausted for the benefit of customers because the depreciation reserve will have been invested in the business. The property resulting from such investment would become obsolete or obsolescent with the rest of the property. This is a risk taken wholly by the utility and its investors, not by the rate payers. The investor will never even theoretically be able to recoup his initial investment.

If the depreciation reserve is deducted in full, the utility and its investors receive no compensation for this risk.

There is always the risk of government competition. Surely, in the short-term picture at least, the rate payer takes no risk. The deduction of the depreciation reserve ignores this equity.

Wholly aside from the risk factor, equity would seem to require some compensation for the operation of property, no matter who owns it or who has paid for it. This is a difficult thing to evaluate since rates are fixed in relation to a rate base. It is, nevertheless, an equity counterbalancing in part the full deduction of the depreciation reserve.

Inadequate Reserves

The depreciation reserves of many utilities are currently inadequate, due in some cases to a long period of retirement reserve accounting, and in other cases to accrual policies caused by the fear of deduction of a large reserve. In the case of inadequate reserves some commissions have deducted a larger straight-line requirement estimated by the commission. There is an obvious additional inequity here because if the utility had accrued sufficient amounts for an adequate reserve, a rate increase would have been justified to cover the increased depreciation accruals. By not having incurred these costs, the consumers in the past have benefited. By employing a retroactive straight-line deduction in excess of the book reserve in determining the rate base, the commission would grant to the present consumers a benefit at the expense of the company and its investors.

There is still another basic equity. It is the equity to the utility which arises from the fact that depreciation is not accrued on value but on cost. Thus, the rate payer in an inflationary period never wholly pays for replacement of the property which is worn out for his benefit. The stockholder must make up the difference to replace the property to continue the same service.

This practice has broad social and economic implications, far beyond the objective of this paper. When new capital must be provided merely to *maintain* the level of productive capacity because depreciation can be accrued only on cost, someone is kidding himself.

The owner gets earnings which are

not true earnings. The government gets income taxes, amounting to a capital levy, on an illusory income. The consumer fails to replace capital consumed for his benefit.

Overall, the situation amounts to consumption of capital without compensation. A dynamic society must add to its facilities—the present practice consumes the accumulations of the past. It cannot be equity.

Considering all of the above, it follows that the equity argument in support of the deduction of the depreciation reserve has not been fully stated. If equity is to be the test, all of the equities should be considered. When they are, something less than a full deduction of the depreciation reserve is clearly indicated.

The Test of Economic Soundness

As a matter of fact, the deduction of the depreciation reserve in determination of a rate base is an anomaly. It effects a hybrid type of theory which combines an original cost of property type of rate base with a prudent investment type of rate base for the purpose of reducing the resulting rate base. This method cannot meet the test of economic soundness today in rate making except by happenstance in the case of a company with negative net current assets or a deficit in the surplus account, or both. It is an economic anachronism being, as an engineer would say, "out of phase" with respect to current times by its very nature.

There are only two other special situations that come to mind in which the net plant method might be used. One is the case of obsolescence where the net plant rate base might coincide with economic value at some point during the decline in earning power of the industry. The other case is that of a utility facing expropriation or municipal, federal, or state encroachment without recourse to regulatory protection. The net plant rate base would at some time be equal to value, depending upon the point at which this depressant on investors' securities caused them to equal such a rate base.

The fact that many of the current practices with respect to the depreciation deduction are unrealistic, unsound, and damaging to the industry and the public it serves, is ample reason on a *logical* basis for a change toward a sounder practice. In and of itself, though, this cannot be taken as a criterion that the pendulum *is going to* swing in that direction. However, I do believe that there have been a substantial number of recent developments which are conducive to a trend away from the more radical views and practices. There are some scattered indications that the move has already begun. The need of the utilities to attract capital to finance its huge construction program has *forced* the reconsideration of some of the theories.

I would like to make some observation on this.

First, I believe we have already heard the most extreme claims that will be made.

Second, current economic conditions are so widely different from those of the recent past that if end results be the test, the more radical of the recent practices are becoming unrealistic. More important, they are recognized in some quarters as such.

Third, the attitude of regulatory bodies is generally improving. Many of the reports at recent NARUC conventions and the actions of that body have given evidence of sounder thinking and more keen recognition of utility problems generally. Rate increases to all types of utilities have been granted in substantial numbers virtually all over the country.

Assertion of States' Rights

Fourth, among the commissions there is a definite trend toward the assertion of states' rights. This brings regulation closer to the problems and therefore makes it realistic.

Fifth, the utility industry itself has given more searching study to the problems. Both sounder practices and more widespread efforts to create a broader understanding of the economics of the business are evident.

Sixth, some commissions, which in earlier decisions had followed the general move to more radical and unsound views, have in more recent decisions again given consideration to rate base techniques based on economic reality.

Seventh, there has been an increasing amount of attention given to the merits of gross plant methods of rate making, i.e., going all the way back to no deduction at all for depreciation.

Eighth, some commissions have adopted a middle ground course. The Missouri Commission, for example, has adopted the Missouri Plan Rule 38A in which a gross plant is used but income is credited with an interest rate on the accumulated reserve.

Ninth, there are a number of indications that it is not as popular as it used to be to treat utilities as the public whipping boy.

Tenth, in jurisdictions where the deduction for depreciation has remained an engineering matter, the abuses of the early years are no longer present. Depreciation is determined on a sound and supportable basis as a physical and economic fact. A number of recent major cases have demonstrated this. (In my own opinion, if this had been done in the late 1920's, there would not have been the stimulus to make the shift to such unsound practices as actually resulted.)

Sound Thinking and Practice

Perhaps no one of these things can be taken as a specific indication of a trend toward sounder practice in treating the depreciation deduction. Many of them relate to broader phases of public utility regulation. Yet, taken as a whole they paint a picture of a climate quite different from that of the decade from 1934 to 1944—a climate conducive to sounder thinking and practice. The development of a trend in that direction is certainly something which we should foster.

In taking aim toward that sounder course, we must logically ask ourselves, "what should we foster?" There is probably no single appropriate solution.

Personally, I subscribe wholeheartedly to the Ohio plan. The Ohio statutes have been such that throughout the years the depreciation deduction in rate making has been a matter of engineering determination. In all recent cases it has been soundly determined, taking into account all elements of depreciation. The resulting deduction has been supported before the commission against rather capable opposition in a number of cases. The end results in overall rate making by the Ohio formula have not produced high rates. In the address of the president of the National Association of Railroad and Utility Commissioners at their annual convention last year, a tabulation of overall cost of utility services to residential users for gas, telephone, and electricity showed Cincinnati and Cleveland to rank fifth and eighth lowest out of the 25 largest cities in the country.

Several other states are either still fol-

(*Continued on page* 166)

Complete Electric House Heating

By Fred A. Compton
Vice President, The Detroit Edison Company

An address before the 16th Annual EEI Sales Conference, Chicago, Ill., April 5, 1950

ELECTRIC house heating presents to the electric industry some problems which are somewhat unusual and as a result are very interesting.

The results of a survey made by your House Heating Committee indicate that the utility companies are showing the same positive and unbiased approach to the electric house heating load that they have done in the past with any other new application in the use of electricity. It found that many companies, particularly those on the west coast where they have as high as 10,000 installations, are making exhaustive studies in order to determine customer satisfaction with both the kind of heat received from electricity and its operating costs. These studies also include the load characteristics, potential market, service problems and many of the other factors relative to this new and, therefore, interesting member of the electric consuming family.

The approach to the methods of electric house heating by the manufacturers of equipment are varied and generally fall into three groups:

1. The heat pump
2. The electric furnace
3. Radiant panel heating

In our operating territory, we do not have any installations of the heat pump in customers' homes. We do have one electric furnace used in a residence and there are about 20 radiant heating panel installations in service and since we have a considerable amount of data concerning these, and are accumulating more, I will today direct my observations on electric house heating to this type of installation.

Radiant Heating Panels

Since 1946, several large manufacturers have been actively promoting the sale of electric radiant heating panels for a complete electric house heating installation.

This application of electricity has, since its inception, been of great interest in our industry as to:

1. Its effectiveness.
2. Its cost of operation and, therefore, its acceptance by our customers.
3. Its effect on our generation, transmission and distribution facilities and related costs.

Growing Customer Interest

In The Detroit Edison service area, we have found that there is a growing interest on the part of our customers in electric house heating and that instead of the occasional inquiry about developments in this field, there has been a noticeable ground swell of customer interest to the point where now they are inquiring, "How *soon* will we have electric house heating?" which indicates, to us, that the business-managed utilities have been right in using a positive approach to electric house heating installations. After all, we have been preaching the doctrine of "Living Electrically" and we should then welcome the opportunity of exploring this new application of electricity so that we can help our customers to completely "Live Electrically." However, we must recognize that our responsibility lies in the area of properly directing and assisting in its orderly development so that our customers do not suffer from ill-advised installations under improperly controlled conditions.

The Approach to Use

Actually, there should be no difference in the approach to the development of this electric load than we used with any other major electrical consuming device, such as the electric range, the electric clothes dryer, the water heater, the home freezer or any of the other appliances which have been developed through the years and which bring comfort and convenience to our customers. If we go back far enough we can remember that the electric iron presented quite a problem to us in the early days of our business.

We frequently hear the remark that electric house heating is too great a problem for us to handle—that it will raise havoc with our rate structure, our generating and distribution facilities and all in all that we should discourage it. We all know that you can't stand still in any business, and I submit that the old and admittedly trite comparison of the ostrich burying his head in the sand is not the kind of tag which we want pinned on the private electric industry. If our rates don't fit electric house heating, then we haven't the proper rate structure.

With this, then, as a premise, let us take a look at electric house heating, as it affects our customers and our companies. To do this, I have divided the balance of this report to you into three sections:

1. What is our industry doing about electric house heating?
2. The Detroit Edison Electric House Heating Study.
3. Our responsibility toward the electric house heating load.

One of the most valuable things about our EEI associations and friendships is the opportunity it gives us to exchange information. This common interest, which all of us have, in electric house heating illustrates how valuable a tool EEI is to our industry. Since your Committee wanted to find out what utilities in general were doing about electric house heating, we sent questionnaires to 36 utilities. I want to thank the representatives of the reporting companies for their interest and prompt answers. The results bear out what I said earlier—that the industry has approached the problems of electric house heating in a positive fashion.

Returns from Questionnaires

Questionnaires were sent to utilities serving from 76,000 to 1,000,000 customers in service areas ranging from 96 to 89,000 square miles. We received returns from 32 of the companies.

Ten reported no electric house heating installations.

None of the companies are presently planning on promoting this load.

Seventeen of the companies reported active promotion by manufacturers of electric house heating units, predominantly of the glass radiant panel type.

Fifteen of the reporting companies have installed metering equipment on house heating installations. This effort, in itself, indicates the interest

of the utilities in this application of electricity.

Only 7 companies actually discourage the use of electricity for primary house heating, while 25 companies maintain a neutral viewpoint, giving the customer a complete explanation of the advantages and disadvantages.

While 17 companies apply the residence rate and 1 the commercial rate, 4 companies provide a special rate. These special rates include a charge per kilowatt of demand with 1½ to 2 cents kilowatthour charges plus a fuel adjustment clause. The average residence rate paid for heating per kilowatthour ranges from 0.8 to 3.2 cents, with an average of 1.9 cents. Five companies do not believe the residence rate adequate and contemplate a rate change for excessive kilowatts of demand.

Performance vs. Operating Costs

In the majority of cases, the reporting utilities indicated the house heating customers are satisfied with its performance but not with its operating costs.

The number of complete house heating installations by utilities range from 1 to 145.

The connected load per installation varied from 4 kw in a 3200-cu ft home to 43.7 kw in a 27,000-cu ft home. This averages about 12 kw for a home of 9500 cu ft, about a 4½ to 5-room home.

The average installation as reported uses 0.24 kwhr per degree day per kilowatt installed in an insulated home and 0.32 for homes which are not insulated.

You can see that this information is valuable primarily for the formulation of a plan for study. It is not conclusive and includes too few case studies.

The Detroit Edison Company Electric House Heating Study

We, in Detroit Edison, with no previous experience have approached electric house heating in the same way that we have the use of any other appliance, such as the electric range, the water heater, the clothes dryer, etc.

Our approach to any new application of electricity consists of 6 basic factors:

From the domestic customers' point of view, these 3 factors are important:

1. *Customer Benefits*—The appliance should render a real service to the customer. It should help him to enjoy the greater convenience and comfort of electric living.
2. *Cost of Operation*—The cost of operating the equipment or appliance should not be so great as to limit its use, result in customer complaints or represent a constant financial hardship to him.
3. *Service Problems*—The appliance should withstand rugged use and its mechanism should not be so complicated that frequent service is necessary.

From the utility point of view, these 3 factors are important:

1. *Revenue*—What is the annual kilowatthour use of the appliance? Generally, any business which tends to increase the existing ratio of net to gross income should be promoted.

   In some cases, it is profitable to promote an appliance which does not increase the ratio of net to gross income but which serves as a sales leader to an overall load-balancing program.
2. *Load Characteristics*—Here we must know many facts. What is the connected load? What is the maximum demand? When does it occur? How long does it last? What will be the effect of many installations on the system peak? Many of these answers will vary from company to company.
3. *Potential Market*—Its use should represent a real value to the customer resulting in a broadened market even though its initial cost may be somewhat high.

If we know the answers to these questions, then we can determine, as far as we are concerned, whether or not we should promote the appliance in question.

We began our study at the start of the 1949 heating season. It will take us another 6 months to complete it. We are utilizing in our study, the installation of kilowatthour and demand meters, instruments to record heat losses through the walls of the buildings, measuring the cubic content of space heated and keeping the record of degree days for each installation.

Now What Are the Customer Benefits?

It is practical from an engineering viewpoint to completely heat homes with electricity and several manufacturers have built and installed satisfactory equipment for this purpose.

We, in our service area, have had 5 customers remove their installations due to dissatisfaction with operating cost or performance. The 20 which remain in service, with 1 exception, are satisfied with its performance. Several of the advantages in favor of electric house heating include cleanliness, freedom from odor, safety—and then, too, the related periodical shortages of competitive fuels.

One of our customers has found it necessary to use auxiliary sources of heat to supplement their electric installations, while 2 others are using gas and oil respectively to decrease the operating cost of the electric installation.

Cost of Operation

The one disadvantage to the electric house heating customer today is the cost of operation; however, we have 8 customers who are satisfied with its operating costs. The average operating cost per heating season for each of these installations will be about $230, with an average installed capacity of 8 kw.

Our study to date indicates that a completely insulated home consisting of 15,000 cu ft of heated space in Detroit where we have 6500 degree days in a year can be heated with a use of 21,000 kwhr annually.

Service Problems

Our servicing problems are limited since all of our installations are too recent; however, our heating engineers who periodically inspect our installations do not report any major or frequent service calls.

Potential Purchasers

The number of customers requesting electric house heating service can conceivably increase quite rapidly since the many advantages may outweigh the high cost of operation in the opinion of many users, and create an active potential market.

Revenue

We, at the present time, apply the residence rate with the lowest step at 2½ cents per kilowatthour. Last November we sent letters to all the customers with primary electric heating installations agreeing to serve them at the present rate for a period of a year. By that time we hope to be able to analyze the cost of serving this load and determine whether or not this type of business will require an adjustment in our rate schedule.

We think that the market for what to us is a relatively new application of elec

tricity, as large as electric house heating and which will use an average of 21,000 kwhr for a 15,000-cu ft home, is very tempting from our viewpoint, and we know that it performs a service which may be well received by our customers.

I know of one prominent company in the appliance manufacturing business which has established potential market areas in the United States for the promotion and sale of electric house heating equipment. Their analysis is based on average annual temperatures, local utility rates and the costs of serving this load. Fortunately or unfortunately, as we may later view it, our Company is not located in their proposed marketing areas.

Load Characteristics

We do not have conclusive data on the load characteristics of electric house heating; however, our installations vary in size from 5 to 15 kw in connected load, averaging about 8 kw. Based on the group maximum demand, the load factor will be a little less than 25 per cent and the peak responsibility will be over 60 per cent of the connected load. A connected load of 15 kw for a home of 15,000 cu ft would have a peak demand of 9.6 kw and a non-coincident group maximum demand of 11.7 kw.

Variable Load Problem

We are all aware that the variable load between winter and summer is the big problem with electric house heating. However, this situation could be offset by seasonal demands of the electric house heating customer for such uses as air conditioning in the summer, and in some cases, irrigation during the summer for the farm customer.

Fig. 1 shows some interesting data on the operating cost of 3 of 20 metered house heating installations located in our service area.

Customer A who occupies a *completely insulated* home of 7735 cu ft of heated space used 1689 kwhr during the month of February which had 1073 degree days. This customer will use approximately 11,050 kwhr for a normal heating season at a cost of $240.

Customer B who occupies a *partially insulated* house consisting of 6531 cu ft of heated space used 2051 kwhr during February in an area which had 1091 degree days. This customer will use approximately 13,140 kwhr for a normal heating season at a cost of $285.

Note that this customer with about 1200 cu ft less of heated space will pay about $45 more this year than Customer A since his home is only partially insulated.

	Cubic Feet of Heated Space	Insulation	Number of Degree Days	Kilowatthour Use in February	Annual Kilowatthour Use	Cost per Season
Customer A	7,735	Complete	1,073	1,689	11,050	$240.00
Customer B	6,531	Partial	1,091	2,051	13,140	$285.00
Customer C	6,500	None	1,073	4,570	28,440	$620.00

Fig. 1—Operating Cost Data on 3 of 20 Metered House Heating Installations in The Detroit Edison Service Area.

Customer C who, by the way, removed his electric heating installation on February 13, occupied a non-insulated house consisting of 6500 cu ft of heated space. During February, with 1073 degree days, this customer would have used 4570 kwhr. This customer's heating cost for a complete normal heating season in our area would have been an estimated $620 for a use of 28,440 kwhr.

Obviously, if you don't have a completely insulated home, stay away from electric house heating. Seriously, from these examples, you can see that the electric house heating installation apparently cannot serve as a replacement heating system in old homes and its market would appear to be limited to new homes specifically designed for this type of installation.

Now, let's take a look at a typical load curve of an installation in our area which has a connected load of 8 kw (see Fig. 2). The demands are shown at half hour intervals for 2 days, Feb. 21 with 46 degree days and Feb. 22 with 48 degree days. Look at the peaks and valleys which come from 12 midnight to 6 a.m.; to 12 noon to 6 p.m.; to midnight of each day.

What Is the Electric Utilities Responsibility Towards the Electric House Heating Load?

Well, in the first place, the electric industry must not develop a negative attitude toward electric house heating. It is said that one of the main reasons that REA started and is successfully expanding is that business-managed electric utilities either could not or preferred not to promote service to the farm customer. We, in our business, cannot afford to discourage new applications of electricity. If they present difficulties, we must overcome them to maintain our position of satisfying the demands of our custom-

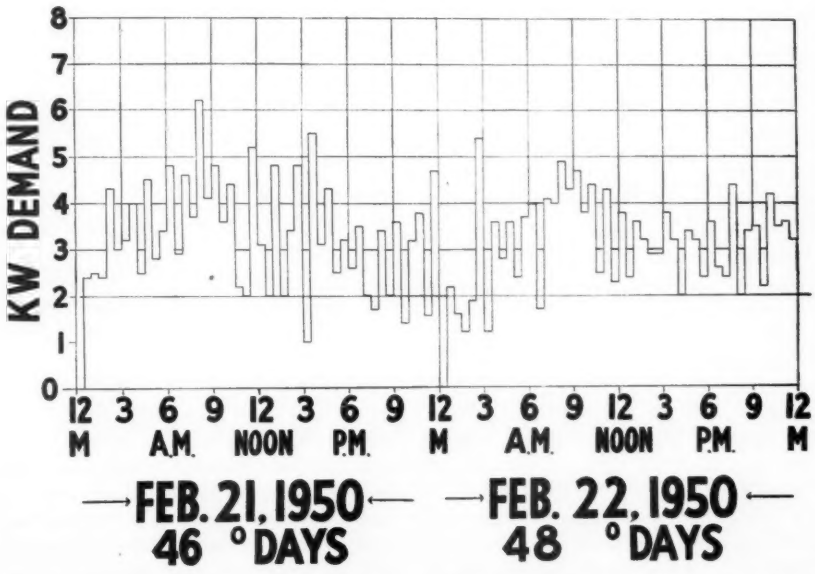


Fig. 2—Load Curve of an Installation with Connected Load of 8 kw Shown at half-hour Intervals for two Days

ers for new products and new methods. We must always be in a position to demonstrate to our customers that their interests and ours are on a common plane.

Therefore, unless we are satisfied to adopt a position of offering only a curbstone service, we must:

1. Give the same consideration, and perhaps more, to electric house heating than we do to any other newly developed application of our product.
2. Continue to remain thoroughly acquainted with all the developments of electric house heating as it affects our customer, our industry and the manufacturers. Unless we do this, we may lose a load which could conceivably be developed into one of the greatest applications of domestic electricity.
3. Have available in our organization personnel who are thoroughly and completely familiar with this use of electricity and can guide its development.
4. Be in a position at all times to give our customers an unbiased opinion on all phases of complete electric house heating in order to offset the sometimes too enthusiastic statements of a small minority of distributors of complete electric house heating equipment.
5. Keep a constant flow of information regarding any developments, problems or data between ourselves in the industry.

If we can and will do this with all developments within our industry, we will be in a position to demonstrate to our customers that the spirit and ability which helped us to grow, in the American tradition, to our present greatness is deserving of their confidence and respect.

Joint Accounting Conference at Louisville Tops All Records for Attendance

(*Continued from page* 157)

ing, although the Material and Supplies Committee held an afternoon session to hear a well-organized paper on "Stores Problems" presented by C. J. Monica, Consolidated Edison Co. of New York, Inc., who stated it as his conviction from a survey of data obtained from 18 companies, that a great deal of paper work commonly used in stores records is unnecessary. He gave as a striking example of his thesis, derived from the study already referred to, the fact that 34 per cent of the time and cost of stores records keeping is devoted to material constituting only 2 per cent of the total value of material and supplies inventory.

An account of the conference would not be complete without mentioning the thirteen manufacturers of accounting and business machines and devices who added so much to the usefulness of the conference by exhibiting and explaining the application of their latest products to electric and gas utility accounting offices. These were:

Addressograph - Multigraph Corporation

All-mark Stamp and Sales Company

American Automatic Typewriter Company

The American Perforator Company

Burroughs Adding Machine Company

Elliott Addressing Machine Company

Friden Calculating Machine Company, Inc.

International Business Machines Corporation

Marchant Calculating Machine Company

Monroe Calculating Machine Company, Inc.

The National Cash Register Company

Remington Rand, Inc.

Rol-Dex Division, Watson Manufacturing Co., Inc.

Deductibility of Depreciation Reserves for Rate Base Purposes

(*Continued from page* 162)

lowing a similar practice or have, in part, reverted to a similar practice.

Thus, the prospects for improvement are better than at any time in recent years. Something can, and should be done.

We must not permit the continuance of the fallacious assumption that depreciation is measurable, in the economic sense, by the results of application of an accounting formula for amortization of cost. We must challenge the assertion that equity requires the full deduction of a depreciation reserve in the determination of a rate base. Only then have we assumed our full responsibility.

"Carefree Cooking" Booklet Published by EEI

"CAREFREE Cooking Electrically," a new 48-page, four-color illustrated electric range booklet has been published by the Edison Electric Institute, for distribution by electric companies to range owners and prospects. All recipes and instructions in the booklet were developed by the Home Service Committee of EEI, and have been carefully checked for adaptability to electric ranges of the type found in the average American Home.

To gain effective distribution of the new booklet, electric companies will purchase copies for issue to customers with electric ranges and to prospective range owners, the procedure followed for the booklet's predecessor, "Meals Go Modern Electrically."

With its four-color cover and illustrations, of appetizing meals, "Carefree Cooking" is, according to the Home Service Committee, well suited to a variety of sales needs. Suggested methods of circulation include: presentation as a courtesy booklet on Home Calls; use as a "write-for" booklet for radio, television, or newspaper advertising; presentation of copies to Home Economics students and small groups of all types when demonstrations are given.

"Carefree Cooking Electrically" is available in minimum lots of 100 from Edison Electric Institute, 420 Lexington Avenue, New York 17, N. Y. Price list furnished on request.

Canadian Electrical Association Announces Lighting Data Sheet Contest Rules

THE Canadian Electrical Association has announced it would sponsor a lighting data sheet competition in 1950 with three prizes of $100, $50, and $25. In addition to these awards, the twelve best entries selected for publication in the monthly magazine *Electrical News & Engineering* will receive $10 each.

The contest will be open to all members of the Canadian Electrical Association and to all employees of any Canadian utility company.

Entry forms and the rules of the contest are fully explained on data sheets available at the offices of the Canadian Electrical Association, 159 Craig Street West, Montreal, and at all its member companies. The closing date of the contest has been extended to September 15, 1950, and all entries must be received at the Montreal offices of the C. E. A. by that date.

Collective Bargaining in a Competitive Economy

By E. Wight Bakke
Director of Labor Management Center, Yale University

An address before the National Conference of Electric and Gas Utility Accountants, Louisville, Ky., April 17-19, 1950.

PROFESSORS in ivory towers and accountants are much in the same boat in this matter of collective bargaining. We like reasonable and fact-centered negotiations, and collective bargaining is not quite that. As a matter of fact, if that is what collective bargaining was like, I think that we would all feel that we had a significant, important and comfortable place at the bargaining table.

What is it that makes collective bargaining something other than a business-like negotiation session? That's what I want to talk about, some of the obstacles that are in the way of that kind of development.

In the first place, collective bargaining is considered by the participants, I think on both sides, not merely as an alternative to battle, but as an alternative form of battle. It still is a group of opponents who are locked in conflict. They just moved into the conference room from the picket line. The issues are just about the same and the attitudes have been modified only slightly. The objective, victory, is still the same.

The Psychology of Battle

The unions still speak of winning their contracts, and management speaks of winning out or losing on their stand for or against this or that. And even when they develop a conception that collective bargaining is an alternative to battle, it is one to be tried only if it gets them what they want without a strike or a lock-out. In the background is always the awareness that if they don't make a deal this way, they will slug it out, and may the strongest man win.

How would it change negotiations for a sale of the company's products if on failure to make a deal, each would try to put the other out of business until they did come to terms? Or how would it be, or how would it change the character of a damage suit before a court, if both parties were not committed to abiding by the judge's decision? If, for instance, one didn't like it, he had a private army that would go in and take what he thought he deserved anyway. That's almost the situation in many areas of collective bargaining—to get what you are after by negotiations, if possible, because it's less expensive that way; but if you can't get it that way, you throw down the gauntlet and fight it out by pitting your strength against the other fellow.

Obstacles to Bargaining

I think the first difficulty is that the psychology of battle still characterizes our collective bargaining. The smoke of battle is in our eyes.

The second obstacle to making bargaining factual and reasonable between management and labor leaders lies in the difference in the basic character of the organizations which each represents. Consider several contracts in the character of both organizations. First of all, business is a risk-taking organization, while the union is a security-seeking organization. Because business is a risk-taking organization, it has need for freedom to adjust to unforeseen circumstances, to take quick advantage of the breaks, to move swiftly before a competitive advantage is lost.

Because the union is a security-seeking organization, one of the fundamental objectives is the reduction of the area of employer discretion. It is an employer-regulating device by its very nature. It wants to get wages and conditions set for a definite period. It is interested in getting binding commitments from management on long-term matters on the fringe-of-wage payments such as vacations with pay, health benefits, pensions, and the like.

Internal Characteristics

The second basic difference in the character of the organizations is this: Internally, management operates within a business system; unions operate as a political system. I need not explain to a group of businessmen what a business is. I need only point out that the success of union operations depends upon the political solidarity of its membership. This solidarity is represented by the firing and hiring, the goals of economic rewards which are techniques well known by political leaders.

A moment's reflection of the methods of political machines and their uses will be aided by this example from business itself. Suppose management had to get the consent of the stockholders before practically every major decision it made? Suppose their operations involved the consistent and detailed activities of the stockholders? Suppose that a stockholder who got dissatisfied by this day-to-day activity could object not by selling stock to someone else, but by withdrawing his capital from the business. Under those circumstances, management would be compelled to develop, in relation to their stockholders, the same kind of political strategies which union leaders must develop in relation to their membership, and the ability of management to make binding decisions on a factual basis, which they had the power to carry through in their dealing with others, would be immensely complicated. Management's stockholder relations would become political and not solely business relations.

Political Symbols

This internally political characteristic view is a particularly hard one for businessmen to understand and deal with. Its impact on wage negotiations is particularly strong. Wage increases, like tax reductions, better streets and alleys, more buses, higher tariffs, and the Kerr bill became a political symbol of political service to some people. As such, the major consideration is seldom their economic portent. Wage reductions are not politically popular. The mere words in an election is the condition in effect upon successfully running for office, and a man finds it difficult to get the bid for office except upon demands being made for an increase, even if conditions say that less is called for.

A promise of more wages has the

effect of partially dispelling these difficulties. Some businessmen understand this because they have used wage increases as a consistent and appropriate part of business accounting and operations when there is an internal struggle for power going on within the utilities or between competing unions. Indeed, in the midst of the present competition within labor management, it must have seemed to many businessmen that wages, in the minds of union leaders, were quite divorced from the problem of business economics.

Business vs. Politics

One of the most important variations in the attitude toward wage problems of union leaders and management which grows out of this difference between a business and a political system, has to do with the reaction to incentive wages. To many businessmen concerned with reducing unit costs and increasing production, it just seems obvious that gearing wages received by individuals to the amount they produced is plain common sense. To the union leader, on the other hand, concerned with political strategy for maintaining group solidarity, competition as between individual and individual, if the potential spread is too great, may appear as a threat, because anything which puts man against man, and which will focus the attention on the individual rather than the group, is apt to destroy group solidarity.

A third difference in the basic character of union and management lies in this fact: A union is a device for continuously changing the balance of economic rights in favor of the workers. A business is principally a device for acquiring economic advantage within the framework of established rights. It's one of the major functions of unions to alter this balance of rights, and the rewards as between employers and workers.

Basic Changes in Power

I think that we would be closing our eyes to one of the most obvious, most significant developments of our time, if we did not recognize that there is going on in American industrial and political life a basic change in the relative degree of power exercised by leaders of business on the one hand, and the leaders of labor on the other; and that this basic change is a fulfillment of one of the major objectives of the unions.

Unions, therefore, find that they simply must challenge management's ability to stay and to operate within the existing balance of rights. A union is a right-changing device, and it is easy therefore for management to see not the issues in collective bargaining as things in themselves or as facts to be dealt with—a pension, a wage change, a vacation, a participation in the safety program—but as a movement in this shifting balance of power. Therefore, the issue becomes much larger than it actually is in itself, because of its impact upon this larger shifting balance of power.

The next obstacle to making collective bargaining factual and reasonable is that the traditional methods of the two organizations are different, and that men trained in different methods cannot be expected to understand completely the reactions of the other. In negotiations, business and industry is an institution. At least, in recent years it has been held to be by the methods of contract, in which considerations were both given and received.

The Businessman's Background

Now, it is unnecessary, I think, to remind businessmen that there was a period of business competition in which more ruthless and predatory methods were used. However, I think it is fair to say that the present generation of businessmen has received its training in a school of more orderly and reasonable procedures. The making of contracts, the substantiating of its relations by the contract is the rule.

Now, the school of hard knocks in which the present generation of labor leaders has been trained is of quite a different source. There is a tradition of struggle for existence, of power to impose settlement as the chief guarantee of getting them. The words, "exploitation," "robber barons," "starvation wages," are not concoctions of distorted minds. They are generalizations from experiences they have actually lived through. The words, "crusade," "fight," "battle," which fall so easily from the lips of labor leaders, are not mere words in their vocabulary. They are symbols of the kind of a job that they have been taught by experience to believe is theirs. Under these conditions, the wage agreement becomes not so much an instrument for mutual advantage in which considerations are both given and received, but a treaty of peace, imposed by the victor on the vanquished.

Now, last, the difficulty in making collective bargaining reasonable and factual is that facts are not always what they seem to be. All facts may be born free and equal, but a rapid inequality develops. Here are some of the difficulties about nailing down facts.

In the first place, it is hard to distinguish facts from bluff. When the union says, "All our men insist on this, and we will strike if we don't get it, and the union has the financial power to back up a strike until we do get it"; is that bluff or is it fact? Must management just take the union leader's word for it?

Facts or Bluff?

Management says, "The condition of trade is bad. Our financial condition is poor. We have got to spend our money this year for technical improvements, or we will go out of business. We can't make any wage increase without raising prices." Are those facts, or are they examples of bluff? Can they be verified without disclosing confidential internal operating figures? Is management usually willing to do that, or must union leaders take management's word for it?

I submit that until the time men can have the real facts before them, they cannot be expected to reason, for men cannot reason without facts.

Facts for a Purpose

A second character of facts, is that they are presented as they are presented —they are not absolute, but they are relative to a purpose, for those who present them. Now, that is not to say that they are inaccuracies, or that they are untruths, but that they are selected for a purpose. For instance, the union says, "It is area practice to have two weeks vacation with pay." They make a survey of a group of individuals to show it. Management comes back with another survey on industry-wide basis, which they say is more relevant to their situation, and they show it isn't industry practice. Which is fact? The answer is, both are facts, but that does not resolve the issue, as some of you who have worked with that know.

Take the matter of profits. Is profits a factor or isn't it? We talk about it as if it were. This is an actual case. I am going to modify the figures just a little bit, so that you won't recognize what company I am talking about, but the proportions are identical. The rela-

tive figures are identical. The company said in its financial statement, "We made $80 million last year." A well-known economist from Harvard, appearing before a Congressional Committee, said that if they had used the proper accounting methods, they would have made $40 million instead of $80 million last year. A Yale accountant, writing in the Accounting Journal, found something wrong, and he said, "If you used the proper accounting methods, you had a deficit last year of $40 million."

How The Union Figured It

By that time, the union leaders got interested, and they put their accountants to work on it, and they came out with the statement that, "If you had figured depreciation this way instead of the way you did figure it, you would have shown a book profit of $100 million."

Now, it is quite evident that accounting is not a precise science, and yet folks generally assume—isn't this true—that it produces a precise profit figure which is a fact. The truth is—and who am I to say what the truth is?—but here is what I think the truth is. There are a variety of methods and ways of handling financial figures, equally respectable, and the company chooses those methods best adapted to its purposes, whatever those purposes may be—to keep taxes as low as possible, to establish a reputation for the firm, to attract new capital, to have figures useful in the kind of investment pricing and wage decision and activities that it is undertaking.

I think there is nothing reprehensible about that. All I am saying is that it destroys the character of profits as reported as a fact. The item, "Profit," is a fact not in an absolute sense, but relative to the method used, which in turn is relative to the purpose sought.

Facts Used as Tools

A third difficulty about facts is that they are used as tools, not as a standard for measuring the soundness of a decision. During the war, when I was working for the War Labor Board, I had the responsibility for carrying on negotiations in the rubber industry, and it seemed to me very important, since this was to be a nation-wide set of negotiations, that we have some facts to go on, so I asked the Bureau of Labor Statistics to undertake a very elaborate factual survey of wages in the rubber industry, and they did it—in a great number of volumes.

We had so much wage data that I don't think there could have been another wage data hiding under a bed anyplace. All kinds of breakdowns, country-wide, nation-wide, compared with all sorts of things, and I went into those negotiations well-stocked with facts. And I thought, "At least, we have got a standard for judgment." How wrong I was! That whole volume of stuff was never used as a standard for judgment.

I went out to Omaha and I found that the same people negotiating for the rubber companies and for the union, were interested for the companies concerned to establish the rate. The union was interested in establishing the community-going rate as the thing to which the rubber rate ought to be compared. The company in that negotiation said, "No, the national rubber rate is the thing with which we should compare it." Well, I put that down. "I have got to watch that. Now, here is the company's policy, here is the union's policy."

Then I went to Akron, and they were almost exactly reversed. They were fighting each other to take this other kind of fact as a basis for measuring wage negotiations. I finally got into pretty much of a mess.

The Problem of an Academic Man

I remembered Dexter Keezer, who at one time was a president of a small college in the Pacific Northwest. They thought a professor would be a pretty good arbitrator for the lumber industry. He took over the job, and he was troubled because as an academic man, he liked to deal in facts. Not all academic men do, but some do. And so, he said, "Now, look, fellows. This is terrible. We can't even agree what the wages are, let alone what they ought to be. Let's get together here and have a committee, which, before every annual negotiation will explore the situation and turn up the facts so at least we don't have to argue about what the facts are."

Well, that worked fairly well for a couple of years, and then he was called to England to be assistant to John Winant, who was Ambassador at that time, then he came back to this country to be a member of the War Labor Board, and the second week he was there, the War Labor Board gave him the settlement of the dispute in the Northwest Lumber Industry. The same boys came before him again. The same thing—they couldn't agree on what the facts were. Finally, he scratched his head. "How come? We had this wonderful-working fact-finding thing set up before I left out there." One of the union leaders said, "Well, the facts got in our way."

Coloring and Interpretation

A fourth factor is that a fact is not a fixed and definite thing, but something which is shaped and colored by the interpretation of the person comprehending and using it. Most folks would think of wages, incentives, and hours of work, as facts, but they aren't black and white things. Let me take a few of these as the most outstanding things and indicate what these things mean to management, to workers, and to the union.

Take wages, for instance. To management, what he means when he uses that word is, "An item on the cost sheet." To the worker, "The basis of all my living." To the union, "A symbol of political service." Or what does the incentive system mean? To management, "A way of stimulating more individual production and gearing rewards to production so that the unit costs may be lowered." To the worker, "A means of making me work my tail off." To the union, "A technique for re-introducing individual rates and setting man against man in competition, a way of undermining the common rule."

What do hours mean? To management, "A period of work which is owed to them by the worker, a period during which a certain amount of product can be put out." To the worker, "A period taken from real living to be made as short as possible." To the union, "A device for increasing take-home pay through overtime."

What Do Profits Mean?

What do profits mean? To management, "An indication of management's ability to survive and to deliver their responsibilities to stockholders." To the workers, "A surplus we didn't get." To the union, "An indicator of the ability of the firm to pay more wages."

Now, it's hard to establish a factually based negotiation when the parties give a different color to the facts according

to the way they fit into their particular situations.

It isn't an encouraging picture at the moment. Accountants who are factually minded people must often feel when they get into collective bargaining negotiations as Queen Victoria would have felt if she ever got into a meeting of Holy Rollers. Much of the development that will determine whether you will feel at home in the future in collective bargaining is out of your hands completely, but is there anything you can do? You have the intelligence to figure it out for yourselves. Just let me make one or two suggestions.

First of all, in your own conferences and schools, get together on your theory, and then get together on trying your hand at getting the public to understand why reputable accountants can come out with profit figures $120 million apart. You have a public relations and public education job to do on the uses of and the techniques of your trade.

Help the Workers Understand

Second, pressure your management for simplified but accurate and meaningful financial statements for workers, union leaders, and stockholders. If you can get the workers to understand what you turn up as the financial condition of your company, you will find that a lot of the heat will be taken off the union leaders who really want to be reasonable.

In the third place, get included in your employee information books explanations of the terms you use, such as depreciation, reserves, undistributed profits, net worth—even such understandable terms as liabilities and assets.

Fourth, urge setting up joint union-management fact-finding commissions to precede collective bargaining. The illustration I gave you shows the problems involved, but that's the direction I think in which we should lean.

Five, figure out ways—this you may not agree with—of increasingly opening books. The startling success of those negotiations in which management has found ways to lay its financial data in very complete form before the workers, ought to indicate that there is an opportunity for experimentation and development.

Six, make a real and sustained effort to get union accountants into your professional organizations and on the programs of your professional meetings. It's little enough that we can do, but it's in the right direction.

Making collective bargaining a reasonable, factual, business-like negotiation is difficult, but I think it is not impossible. And the stakes are high. Unless we can develop it that way and move away from class warfare in this collective bargaining business, accountants and professors are not going to have much of a place, save as slaves of those who do the actual fighting.

But more important than our position is this: the future of free private business is questionable unless we can move collective bargaining in that direction. If we can do that, we can integrate this growing and purposeful union movement with our business society. Unless the future can count on us to do that, it is my firm conviction that we will not be here as free businessmen and as free union leaders to be counted.

Detroit Edison Employees Prove Success of Industry Information Pamphlet Rack

UNUSUAL results in the distribution of literature to employees have been obtained in a two-week test of a pamphlet rack by The Detroit Edison Company.

In connection with its information program on the national invasion of the power field, the company wished to make available information and printed matter without swamping employees. The magazine rack shown below was placed on a table at the exit of a company cafeteria in its general office building. In two weeks time, approximately 5,000 pieces were picked up by employees. In general, no attendant was present or "pushing" the distribution of literature, the librarian merely supplying the rack with additional copies of material as needed.

The three most popular pieces were "The TVA Idea" by Dean Russell, the EEI booklet of 27 Questions and Answers, and "The Battle That Squanders Millions."

Employee comment, so far as any was received, was very favorable, the distribution was inexpensive, and the opinion of company people highly selective, in that only those interested received material. As new literature becomes available on the subject of the utility industry and its problems from federal encroachment, it is planned to use the rack again.

Depreciation Accounting Practices of Individual Companies

By W. J. Foster, Jr.
New York State Electric & Gas Corporation

An address before the National Conference of Electric and Gas Utility Accountants
Louisville, Ky., April 17-19, 1950

THE Chairman, Alex Bauhan, of the EEI Depreciation Accounting Committee, appointed a subcommittee last November 15 to make a survey of the current depreciation accounting practices of EEI member companies. Mr. Bauhan, before appointing a subcommittee, had very thoughtfully prepared a draft of a proposed questionnaire to be sent to member companies in order to carry out the aims of this subcommittee. The questionnaire has been subject to some revision and modification by the subcommittee for the purpose of developing a set of questions which would provide the answers required to tabulate a comprehensive analysis of depreciation accounting practices in the industry. Before submitting the questionnaire to all member companies, copies of the draft were sent to the companies represented by members of the depreciation accounting committee.

Data Supplied by 19 Companies

Replies have been received from 19 companies representing $5,936,000,000 of Fixed Capital and geographically covering pretty much all sections of the United States. The data revealed by the questionnaire has been extremely informative and I wish to express the appreciation of the subcommittee for the effort exerted by representatives of the various companies in making the replies. In addition to the fact that a very considerable fund of information has been compiled, the nature of the replies will enable the subcommittee to further improve on the questionnaire before submitting it for answers to all members of the EEI.

Although the questionnaire contains 32 items with many of the questions providing for detailed answers, the replies were uniformly excellent even though occasionally a question was not too clear and some replies were subject to various interpretations. An analysis of the replies indicates certain patterns which fall naturally under general subject headings and it appears that a review of the various subjects offers the best means of presenting the accumulated data obtained on this trial run.

In setting forth the results or answers, the matter will be grouped to some extent. The most surprising information developed relates to the replies received in connection with Questions No. 21 and No. 22.

The focal date of the information presented in the questionnaire was for the most part, Dec. 31, 1949, with some few companies reporting at various dates from Sept., 1949 to March, 1950.

Depreciation Reserve Funds

4. *The depreciation-reserve funds are invested in:*
   property and plant—*5 companies*
   unsegregated assets of company—*13 companies*
   specific assets, which are principally:
   government bonds—*one company*
   securities of the type acceptable for trust funds—*none*
   senior securities of company—*none*
   other—*none*
5. *Reserves are segregated, either on books or by memorandum accounts, by:*
   not segregated at all—*8 companies*
   segregated by departments—*5 companies*
   segregated by functional accounts—*one company*
   segregated by primary accounts—*5 companies*
   otherwise—*none*
6. *If more than one method is followed (i. e., one method for say, transportation equipment, and another method for other property), set forth each method and note where applicable.*

It was quite clearly indicated that, for the most part, depreciation reserve funds are invested in unsegregated assets of the various companies, but there was distinct effort on the part of many of those responding to this question to indicate that although the reserve funds are mingled with other cash in the general fund and used for many corporate purposes, it is probable that these funds are mainly invested in plant replacements and additions. As a result some companies stated definitely that the reserve funds were invested in Plant, while others were not willing to commit themselves since the funds were mingled with other funds.

Five companies reported specifically that the funds were invested in property and plant, but in the absence of rather elaborate financial control of the reserve funds through the medium of special deposit accounts, it is quite likely that in these five instances the amounts charged for depreciation expenses find their way into general corporate funds and consequently precise relationship with property and plant investment is not possible. Even though it might be possible to state that the current depreciation funds were invested in plant, some seemed to feel that they were not in a position to say this had always been done.

Investment of Reserve Funds

Twelve companies indicated investment of the reserve funds in unsegregated assets of the company with the reservation that for the most part these funds, in a general way, ultimately became invested in physical plant. One company reported investment of reserve funds in government bonds and another company noted that although the depreciation reserve funds are invested, for the most part, in unsegregated assets of the company the major portion of these funds are invested in government bonds as temporary cash investments.

An indication of the general trend toward more detailed depreciation reserve accounting was contained in the replies to Question 5, wherein it was indicated that eight companies do not segregate the reserves at all, five com-

panies segregate the reserves by departments, one company segregates the reserves by functional accounts and five companies segregate reserves by primary accounts. It is interesting to note that the five companies reporting detail accounting operate in California, New York and Wisconsin.

In connection with Question 6, it should be noted that many of the companies reported that more than one method was followed.

Sinking Fund

7. *Interest as such is credited to the reserve:*

	Separately	*Included with Annuity*
Not at all—14 companies	—	—
Monthly—4 companies	2	2
Annually—1 company	—	1
Otherwise—none	—	—

8. *The reserve interest rate, if interest is taken, is:*
   monthly—*none*
   annually—*1-3 per cent, 2-5 per cent, 1-6 per cent* as earned on funds—*one company*
   otherwise—*none*
9. *Reserve interest, if interest is taken as such, is charged to:*
   depreciation expense
      for rate purposes—*one company*
      for general corporate accounting purposes—*4 companies*
   operating income deduction
      for rate purposes—*one company*
      for general corporate accounting purposes—*none*
   otherwise—*one company*

Sinking Fund Methods

With regard to the use of sinking fund methods it seems appropriate to quote from the volume "Electric Power and Government Policy," published by The Twentieth Century Fund, page 120:

"Straight-line depreciation charges are determined by deducting estimated salvage value from the cost of the property and dividing the difference by its estimated service life. Under the sinking-fund method the fixed sum of money set aside for each period is augmented by interest accumulations, the direct charges plus the interest accumulations, equaling the cost of the property (less salvage value) at the end of its service life.

"The California commission normally determines the companies rate of return in two ways. With an undepreciated historical-cost base, it makes no adjustment in actual sinking-fund expense accrual; with a rate base depreciated by deducting the depreciation reserve balance, it adjusts the utility's operating expenses to include not only the actual sinking-fund depreciation accrual, but also an amount equal to the assumed-interest charge on the reserve balance. This is known as the compound-interest method; the California commission customarily refers to it as the modified sinking-fund method. Results of the two methods are identical if the interest rate used in determining the sinking-fund depreciation percentage is identical with the allowed rate of return."

Of the nineteen companies responding to the questionnaire, five companies reported that they are on a Sinking Fund Basis. The real purpose of Questions 7, 8 and 9 was to try to determine to what extent the depreciation accrual and the interest accretions are segregated as to record in accordance with the general theory that the depreciation accrual is an operating expense charge and the interest accretion a deduction from income.

Three companies reported that the Reserve Account is credited with interest included in the annuity and two companies reported that interest is credited to the reserve separately. The interest rates in use are 3, 5, and 6 per cent and "as earned on funds."

The replies to Question 9 indicate that perhaps the question was not too clearly stated. All five companies reported that for general corporate accounting purposes, reserve interest is charged to depreciation expense and one company reported that interest is included with expense for rate purposes. Insofar as operating income is concerned one company reported that the interest is a deduction for rate purposes and this would appear to be in accordance with regularly established procedure in the respect that the deduction is "below the line." One company reported the reserve interest as a "debit to the Depreciation Reserve Fund."

Determination of Accrual Method

For purposes of discussion and tabulation, Questions 10 and 11 have been combined as follows:

10-11. *The accrual method, by which periodic charges for Depreciation Expenses are determined (i.e., the amounts charged to the operating expenses) is based on: (if more than one method is used, use E for Electric Department, G for Gas Department, A for Transportation Department, etc.)*

(a) Periodic plant balance, i.e., methods by which periodic charges are determined by multiplying plant balances by a percentage, as in the group accrual method (1)
   Composite (by Department or whole Company)
   percentage basis—*6 companies*
   Account or functional group percentage basis—*6 companies*
   By order of a regulatory body—*2 companies*
(b) Elapsed time (as in the unit and unit-summation accrual methods)—*3 companies*
(c) Operating time (as might be used for transportation equipment)—*4 companies*
(d) Distance traveled (as might be used for transportation equipment)—*3 companies*
(e) Revenue—*2 companies*
(f) Product produced or sold—*2 companies*
(g) Depletion of associated resources (as might be used for natural gas production and gathering plant)—*none*
(h) Charging economic value of plant—*none*
(i) Some rule related to the amount of reserve—*none*
(j) Fixed percentage of unrecouped balance—*none*
(k) Availability of earnings—*none*
(l) Discretionary lump sum—*4 companies*
(m) Otherwise—*none*

NOTE: Total of 19 companies obtained by adding 14 companies under (a), 2 companies under (e) and 4 companies under (l).

Depreciation Accounting Procedure

The base to which the periodic accrual rate is applied in order to determine the monthly depreciation expense in all probability presents one of the most interesting sources of information in regard to the depreciation accounting procedure adopted by various companies because it is from such source data that the practices of various companies can be ascertained.

In general the periodic accrual is based upon plant balances, revenue, discretionary lump sum or fixed amount by order of a regulatory body, except in the case of portions of the total plant such as transportation equipment, certain production equipment and coal mines, where operating time, distance traveled or product produced or sold is used.

The periodic plant balance basis is employed by the majority of the companies, 6 of which indicated use of composite balances for the whole company or by departmental totals; in more detail were the replies of 6 additional companies which reported that periodic accruals are based on account or functional

groups of accounts for application of the accrual rate. Two companies reported periodic accruals in accordance with orders of regulatory bodies although based upon plant balances.

Automotive Equipment

The most singular departure from periodic plant balances is provided in the treatment of automotive equipment. Although two companies reported the use of periodic plant balances for the determination of depreciation expense in the case of automotive equipment, the majority of the reporting companies resorted to other devices for accruing such expense. Insofar as special treatment of automotive depreciation expense is concerned, two companies reported use of elapsed-time basis, four companies operating time, and two companies distance traveled. Further departures from plant balance methods are provided in the case of one company which accrues all expense on an elapsed-time basis for production plant and structures, two companies which accrue electric department expense on the basis of electric revenues, one company producing coal using cost per ton of coal mined and another company basing the depreciation expense for its gas department on the volume of gas produced. Three companies indicated the use of discretionary lump sums.

16. *The periodic depreciation accrual, if not computed directly for the company as a whole, is the sum of accruals which have been separately computed on the basis of figures for each:*
    - department—*5 companies*
    - functional account—*none*
    - primary account—*6 companies*
    - subdivisions of primary accounts—*none*
    - primary accounts at each location—*none*
    - unit—*2 companies* (one for only certain property)
    - otherwise—*none*

(In other words, what is the accounting level of the accrual computations?)

17. *When periodic accruals are made:*
    - Monthly—*19*
    - Quarterly—*None*
    - Annually—*None*
    - Other—*None*

The figures (plant account balances) which are the basis of periodic accrual computations are as of:
- 1st of current month—*3 companies*
- end of previous month—*3 companies*
- end of current month—*none*
- average current year—*4 companies*
- average previous year—*none*
- end of previous year—*3 companies*
- 1st of current year—*one company*

If basis used is not set forth above, explain basis used .....

18. *If unit or unit-summation accrual methods are used, are regular accruals made to end of estimated life in the case of equipment retired before the end of estimated life or are unrecouped amounts accrued at the time of retirement?*
    - to the end of estimated life—*2 companies* (for certain property)
    - at the time of retirement—*2 companies*
    - otherwise—*none*

19. *If operating-time or distance-traveled accrual methods are used, are unrecouped amounts accrued at the time of retirement?*
    - at the time of retirement—*no for 2 companies*
    - otherwise—*none*

The replies to Questions 12, 13 and 14 were so meager that it is not worth while commenting on them.

In every instance the nineteen responding companies stated, in reference to Question 15, that there is no automatic reserve adjustment incorporated in the accrual for departure of actual mortality and salvage characteristics from those which have been estimated.

Accrual Computation

The responses to Question 16 and other questions that preceded, provide sufficient data from which to draw conclusions as to the accounting level of the accrual computation:

6—Company as whole (revenue, lump sum, etc., bases)
5—By departments
6—By primary accounts
1—Mass accounts only
1—Unit basis
1—Unit basis for production plant and structures only

The determination of the amount of the monthly accrual for depreciation expense purposes under Question 17 is recorded from a variety of sources, but primarily as the result of using plant account balances at the end of previous month or first of present month as in the case of six companies, the average of the current year, as reported by four companies and end of previous year or first of current year, as indicated by four companies. Two companies indicated that the monthly depreciation accrual for portions of their property is based on current monthly revenue; four companies charge a lump sum during the year and one company records a monthly charge which is based on an annually estimated amount divided by twelve months.

Accruing Against Retired Property

Questions 18 and 19 are interesting in that attention is focused on the question of accruing against retired property which is accounted for on a unit basis. For the most part the replies indicated that the questions were not applicable, but two companies stated that in calculating the accrual for automobiles regular charges are made to the end of the estimated life even though the equipment is retired before the end of estimated life has been reached. Two companies reported that unrecouped amounts for property retired prior to estimated life were accrued at the time of retirement. In the instance of use of operating time or distance-traveled accrual methods, two companies replied that unrecouped amounts are not accrued at the time of retirement.

20. *Where the average life used for a summary account is a computed composite of the average lives of constituent detail accounts, the composite is:*

The above question brought forth but one reply to each part of the leading question—one using balance weighted harmonic mean and one, otherwise. I hope that each company knew what it was doing when answering, for I think the question is beyond most of us and should be revised or eliminated.

The following two questions were previously referred to, and to me, the replies are most interesting and surprising:

21. *Has a theoretical computed reserve appropriate to herein reported accrual method or to some other accrual method been:*
    - submitted by company to regulatory authority—*3—yes, 13—no*
    - determined by regulatory authority—*2—yes, 15—no*

22. *Has a regulatory authority established or is it advocating, in respect of the reporting company, a theoretical computed reserve determination on some basis incon-*

sistent with the herein reported accrual method?
(Disagreement as to amount of theoretical computed reserve arising from differences in life estimates are not considered to create inconsistency under this question)
—16—no

Views of Regulatory Bodies

In view of the rather active interest on the part of regulatory bodies in depreciation accounting matters, including the questions of adequate reserves and proper annual accruals, it was surprising to learn that in only three instances have theoretical reserve requirements been submitted to regulatory authorities and in only two instances were the theoretical reserves determined by regulatory authority. This indicates there was active interest in the proper reserve on the part of regulatory authorities in only five instances. Of these five instances, three occurred in New York State, one in Pennsylvania and one in Michigan.

The response to Question 22 was "no" in every instance, which also is surprising.

Periodic Adjustment of Depreciation Reserve

23. *Is theoretical computed reserve periodically determined?—16—no, 3—yes*
If not, are periodic tests made of whole or portion of reserve in order to test reasonableness?—12 no, 4—yes
24. *If so, how frequently?—Four—3 yr., one—annually, one—3 to 5 yr., one—occasionally*
25. *Is there provision for routine adjustment of deviation between actual reserve and theoretical computed reserve?—16—no, 3—yes*
If so, how is the adjustment made?
One—Judgment
One—Computation
One—Change estimated life
26. *Where accrual rates are based on estimates of utility plant survivorship, are such estimates made in the light of statistical analyses of plant experience?—4—no, 8—yes*
27. *If statistical analyses of plant experience are made, what methods of analysis are generally used:*
actuarial—*5*
turnover cycle—*3*
half cycle—*1*
asymptotic—*2*
geometric mean—*1*
simulation—*4*
other—*2*

NOTE: Companies report using more than one of the above methods and the above represents answers of six companies only.

In regard to the replies received for Questions 23 to 27, inclusive, it is interesting to note that while there are a total of 14 companies that determine the depreciation accrual on some basis of plant balances, only 7 companies make periodic tests of their reserves in whole or in part, and apparently only 3 companies make adjustments.

Transfer of Plant Location

28. *In the case of plant transferred from one location to another, life estimates for depreciation accounting purposes are based on:*

	life at the location	life in the service of the company
all accounts	one company	6 companies
if practice varies by accounts, please detail below	2 companies replied, giving details	

29. *In the case of plant transferred from one plant account to another, life estimates for depreciation accounting purposes are based on:*

	life in the account	life in the service of the company
all accounts	2 companies	6 companies
if practice varies by accounts, please detail below	1 company replied, giving details	

In regard to plant transferred from one location to another, six companies reported that life in the service of the company is the basis for transferring all plant from one location to another and one company uses life at the location. Two companies reported that meters and transformers are transferred on a life-in-the-service-of-the-company basis and one of these two companies makes transfers of all other plant on the basis of life at the location, the other company transfers only major plant property on the basis of life at the location.

In making transfers from one plant account to another, six companies use life in the service of the company and two life in the account. One company uses both methods dependent upon whether or not the transfer is with or without physical change in the plant, if physical change takes place then life in the service of the company, if without physical change then life in the account.

Salvage

30. *If salvage analyses or estimates are made, the analyses or estimates are:*
of net salvage—*10 companies*
segregated as to:
gross salvage—*6 companies*
cost of removal—*6 companies*
indemnification (arising from fire, casualty, and conflict with non-company improvements)—*one company*
otherwise—*none*

Apparently only ten companies are keeping fairly complete accounting data as to salvage from retired property with segregation as to gross salvage realized and cost of removal. In response to this question, five companies indicated no records at all, and, as some of these companies so reporting are located in states wherein depreciation reserve accounting has become quite firmly established, it would appear that perhaps the question has been misunderstood. Only six companies reported segregation of salvage as to gross and cost of removal, which, of course, provides net salvage. Four companies reported net salvage data without indication of segregation, however, in order to determine the net it would appear that records of gross salvage and cost of removal must be maintained in the case of these four companies and it is, therefore, concluded that ten companies perpetuate salvage recovery sums and costs of property removal. Nine companies made no response to this question.

Source Data

With regard to Question 31, relative to the preparation of basic data required for the establishment and preparation of depreciation procedure, it was found that most companies perform all of the required operations within their own company organization and infrequently call upon the services of consultants. Although many departments were charged with the responsibility of preparation of data, it appears that most of the material is prepared by Plant Accounting Departments.

It is of interest to note that the Federal Power Commission in its 1948 report on "Electric Utility Depreciation Practices" states among other things that, "At the end of 1948, 73 per cent of the utilities are using straight-line methods" and, "At the close of 1948,

(*Continued on page* 184)

Collections—Tailored to Your Measure

By L. R. Quad
Public Service Electric and Gas Company

An address before the National Conference of Electric and Gas Utility Accountants, Louisville, Kentucky, April 17-19, 1950

WHEN THE Joint AGA-EEI Collection Committee met in Cincinnati several months ago, there was considerable discussion concerning a project for presentation at this Accounting Conference. In the continued work of the Collection Committee many new angles and ideas have been developed in past years, and we are sure that the work of the committee will continue to include practices, procedure, and policies which will be of interest to the industry. The committee discussion finally concentrated on what might be termed a "grass root" or "brass tack" approach. They thought it would be of interest at this time to review within the industry some basic collection practices. The intention of the committee was also to review these practices from the point of view of changes which have been made during the past several years.

Fifteen representative companies covering the operation of collection departments coast to coast were asked to submit their practices. All of these companies responded and the basic operations of their collection departments have been reviewed by the committee with a great deal of interest. It was found that fundamental practices do not differ greatly. The primary difference which existed in the operations seemed to lie in the amount of collection treatment given. This, of course, is largely dependent upon the collection policy of the individual company.

The "Boiling Down" Process

After considerable discussion and concentrated effort on the part of your committee to reduce the collection practice of fifteen companies to one basic representative practice, the attempt was abandoned. The "boiling down" process resulted only in a conglomerate picture which was in effect more confusing than enlightening. It was proposed therefore that the practice of one representative company be selected and a concise presentation made in order that you may obtain as much information as possible of a helpful nature.

The company selected, Public Service Electric and Gas Company of New Jersey, is a large combination company, on the eastern seaboard, supplying both gas and electric service to more than one million two hundred thousand customers. During the forty-seven years of its existence as an operating utility, this company has devoted a considerable amount of time, effort, and money to the review and modernization of its collection practice and procedure.

During the severe business depression of the early 1930's analysis and review of collection procedure were considerably intensified, and the collection phase of this company's activities has been given concentrated attention for the last twenty years. During the last ten years, effort has been directed toward tailoring procedure and policy to meet the changing requirements of the economic situation.

How the Problem was Faced

The committee selected the Public Service Electric and Gas Company of New Jersey as a typical company among the larger operating utilities in the country, primarily because of the somewhat extraordinary degree of General Office staff work and field attention which have been directed toward the problem of collections during the period of the past ten years. Some of these specific activities which have been directed toward collections have been:

1. The appointment of special committees and subcommittees of field office management personnel which have devoted their attention largely to the review of notice forms and many other phases of collection work.
2. The appointment of a special investigating committee to visit other companies and study their collection practices at first hand.
3. The appointment of a General Office staff member to review all field office reports, to coordinate policy and procedure and to act as a general supervisor of collections for the entire company.
4. The preparation of a Manual of Procedure to insure uniform practice for all district offices.

These are just a few of the items which indicate the collection consciousness of the company and which serve as a background for its selection by the committee.

Public Service Electric and Gas Company has twenty-three district offices and six branch offices, varying in size from a district office serving approximately eight thousand accounts to a district office serving approximately two hundred thousand accounts.

The company does not have a discount or penalty feature in its rate structure. This means, of course, that there is no monetary consideration involved which would cause customers to pay bills promptly. It is assumed, with some reason, that companies without such provisions to give an incentive for prompt payment would experience a more difficult collection situation because of this lack of incentive. This is an extremely difficult factor to measure accurately.

"Traveling Cashier" Service

One indication of the extent of importance given to the collection of accounts is that in this company, as of Sept. 30, 1939, 530 employees were engaged in collection follow-up. Of these 484 employees were actually collecting accounts in the field, the remainder were office employees. A review of the situation at that time disclosed that the company was providing what might be termed "traveling cashier" service, which was undeniably convenient for many customers, but also very expensive. A careful analysis of the situation indicated that the company should take steps to gradually withdraw at least a portion of the "traveling cashier" service, so that in the following six years the total number of personnel was reduced from 530 to 383 as of September, 1945. The reduction in actual field collection effort amounted to 144 employees. As of September,

1949, the figures indicated a further reduction in the amount of field effort. The company now has 115 field collectors and 53 office representatives. The force of field collectors and office representatives is subject to further reduction as normal personnel changes permit. It will be of interest to know that these personnel reductions did not include any layoffs or dismissals. They were accomplished by normal turnover including retirements and transfers to other work.

Before attempting to cover the basic collection practice of this company, it might be advisable to describe briefly the method used in billing accounts.

Meter Reading

All meters are read and billed monthly with the exception of some rural areas where accounts are read and billed bi-monthly. The number of accounts billed monthly is approximately 1,200,000 and the number billed bi-monthly is approximately 25,000.

Billing

Billing is done on National Cash Register machines and the majority of it is done on a four-part paper bill. Some straight postcard (not punch card) billing is done and it is contemplated that this type of billing will be extended as conditions warrant.

The majority of all accounts billed are hand delivered, without envelopes. Some of the former field collection manpower has been diverted to bill delivery, and this has been found less expensive than mailing at three cents postage cost per bill.

Collections

The following explanation of the company's procedure for the collection of outstanding accounts has been prepared in as concise a manner as seemed appropriate. It is clearly recognized that different companies have vastly different problems and that the various geographic sections of our country present changing economic standards. It is therefore hardly conceivable that a collection procedure established by one company could, or would, meet the needs of another company unless they were very closely related in the factors of urban and suburban distribution of customers and in their economic positions. The so-called basic collection practices of this company are presented to you with no attempt whatever to give the impression that the procedures are recommended for adoption as standard by the industry. Rather, the following is presented to you only as an indication of what this company has accomplished in establishing a uniform procedure for collection treatment after having spent considerably time and effort in a study of collection conditions.

Numerous revisions and changes in procedure have been instituted. These changes have been made in the interest of attaining three primary objectives:

1. To meet the needs of changing economic conditions.
2. To effect greater economies of operation.
3. To effectively control losses due to uncollectible accounts.

In collection activity, as in many other phases of the company's operation, policy and procedure are closely related. If *policy* dictates an extremely lenient type of treatment, collection procedure naturally is limited in scope to the follow-up of seriously delinquent accounts only, which reduces *volume* of work considerably.

The efficiency and overall effectiveness of the Collection Department are largely dependent upon a sound policy governing work assignments. The following requirements are important:

1. A clear understanding by supervision of the relative importance of the various functional requirements of the department.
2. A specific knowledge by supervision of the work capabilities and capacity of the departmental personnel.
3. Application of general policies and procedures to insure most effective utilization of personnel in performing those departmental functions which are most important, in light of local conditions.

In general, work assignments covering collection activities are governed by the following:

a. Elimination of field collection calls which constitute merely a payment service for customers.
b. Application of selective collection treatment to those accounts warranting such treatment, in accordance with relative importance.
c. Further reduction of field calls to the extent possible through the more extensive use of telephone and mail follow-up.

Field Calls

Field collection treatment is confined largely to the following:

a. Final bill accounts.
b. Delinquent residential accounts.
c. Delinquent merchandise accounts.
d. Delinquent Commercial and Industrial accounts.

Final Bill Accounts

When an order is received for the discontinuance of an account, special attention is given to obtaining the new address of the customer. If this information is obtained it will expedite prompt presentation of the final bill to the customer and will facilitate subsequent follow-up of the account, if such follow-up is required.

Normally, field collection treatment of final accounts is limited to those accounts warranting such action based upon:

a. The amount of the bill.
b. The apparent prospects for collection.

Field collection treatment expended on these accounts is consistent with the amounts of the bills involved.

Office Procedure

Each final bill for an inactive account is forwarded by the Customers Accounts Department to the Collection Department. These bills are reviewed in the Collection Department prior to mailing.

The representative's collection coupon (one Section of four-part bill) is also retained in the Customers Accounts Department and placed in a file according to order of date mailed. This file is used as the basis for subsequent mailing of the Final Bill Reminder. A Final Bill Reminder is mailed covering all such accounts which remain unpaid 20 days following the mailing of the final bill. This reminder is not used on accounts which have been finaled following a discontinuance for non-payment. Further information concerning the Final Bill Reminder is outlined below.

When, in the opinion of local management, immediate collection treatment or field follow-up is warranted, a Collection Card is prepared in the Collection Department and serves as medium for such collection action.

Final bills which are returned by the Post Office as not deliverable are forwarded first to the Collection Department for the preparation of collection cards. These final bills are then forwarded to the Customers Accounts Department and the ledger records and representative's coupons are noted to the effect that the bills had been returned by the Post Office. Office records of the

account are examined, including the meter reading record, the inactive order, the original active order, etc., in an effort to obtain the customer's new address to avoid, if possible, the necessity of a field tracing call. Any information obtained is entered on the ledger record and the representative's coupon. Such final bills, with the information shown, are then returned to the Collection Department for appropriate action. Any information obtained in the tracing operation is also transcribed to the Collection Card.

In connection with the tracing of certain final accounts, use is made of the Post Office service covered by Chapter VI, Article 6, Sections (d) and (e) of the Official Postal Guide. The following is an excerpt from the Postal Guide covering this service:

(d) "Except as provided in subparagraph (b), a minimum charge of 25 cents, payable in advance by cash, money order, or postal note, is made at all first and second-class post offices and at third-class offices having city or village delivery service for the correction of any mailing list bearing less than 25 names, and for any list of 25 names or more, a charge of 1 cent for each name submitted (likewise payable in advance) shall be made, plus the postage for the return of such list.

"No charge is made at third and fourth-class post offices not having city or village delivery service, for the correction of mailing lists consisting of less than 25 names. A charge of 1 cent a name may be made for the correction of lists containing 25 names or more.

"Furthermore, all lists submitted, whether for correction of address or elimination of duplicates, are to be considered mailing lists."

(e) "Mailing lists should be submitted in card form, approximately the size and quality of the ordinary postal card, one name to a card, with the owner's name in the upper left corner. When a list is submitted in sheet form, it will be corrected from the directory records only and not verified by carriers. Mailing lists prepared by stencil, multigraph, or other similar processes, are acceptable for mailing at the third or fourth-class rate of postage according to their weight. Mailing lists which are handwritten or typewritten are first-class matter and are subject to the first-class postage rate."

Final Bill Reminder

The Final Bill Reminder notice is a four-part continuous form. The No. 1 copy of the Final Bill Reminder is mailed to customers whose final bills have not been paid 20 days after the final bill has been mailed. The No. 2, No. 3, and No. 4 copies of this reminder are subsequently mailed on final bills remaining unpaid at the end of 14-day intervals thereafter. A notation is made on the ledger record to record each mailing of a Final Bill Reminder. When the collection card and representative's coupon are subsequently checked with the ledger records, information concerning mailing of Final Bill Reminders and any other pertinent information shown thereon, is transcribed to the collection card and representative's coupon. After reasonable effort, consistent in degree with the amount of the final charge, has been expended, the final amount is charged off and referred to a professional collection agency for further tracing and collection effort. The methods employed by this agency have been subjected to careful review and approval by the company.

Delinquent Accounts

A "Friendly Reminder" sticker, a small attractive label type sticker carrying a brief friendly reminder message, is attached to each bill with a delinquent service bill rendered. If collection treatment of any of these accounts is deemed to be necessary, it is made through the use of telephone calls, where telephone facilities are available. Where telephone facilities are not available, collection treatment includes the use of letter follow-up. The "Friendly Reminder" sticker notices have, to a considerable extent, replaced the "reminder" call formerly made by the collection representative.

Field Collection treatment of delinquent accounts is assigned to Collection Representatives.

Limitation of Credit

In a small percentage of cases, it is necessary to limit the credit of customers due to non-payment of their bills and because of an unsatisfactory payment record for a period of time. Limitation of credit is customarily accomplished through the medium of a Discontinuance Notice. Discontinuance Notices are not used as a collection medium but are used solely for protection against loss.

Discontinuance Notice

1. *Approval by Local Management*

The district office Commercial Manager is responsible for personally approving each Discontinuance Notice prior to its release for mailing to the customer. In reviewing discontinuance notices for approval, local management takes into consideration the following factors:

a. The effect on customer relations.
b. The amount outstanding.
c. The period covered.
d. The length of time customer has been using service.
e. The customer's apparent ability to pay.
f. The customer's prior payment record.
g. Type of account (residential or business).
h. In the case of business accounts, limitations of financial resources and financial liability.
i. The amount of deposit (if any).

Any other factors which may have a bearing on the customer's credit are also given full consideration in order that intelligent use is made of the discontinuance notice.

2. *Code System*

In order to facilitate review of discontinuance notices and subsequent collection treatment and follow-up, a code system for indicating pertinent collection information regarding the customer's account is used. The system provides that a code be shown on the customer's ledger record and that it be transcribed therefrom by the typist to the discontinuance notice. The code system embraces the use of the following symbols:

Code Symbol	*Designation*
A.	To indicate customer who has used service for a period of less than 12 months.
B.	To indicate a business account.
D.	To indicate that service for the customer has been discontinued for non-payment during the past 12 months.

Additional components of the code include the following:

a. Entry of a number *preceding* the letter code to indicate the number of Discontinuance Notices issued to the customer during the preceding 12 months.
b. Entry of a number *following* the letter "D" to indicate the number of times the account has been discontinued for non-payment during the preceding 12 months.

This extremely simple code has been adequate to meet requirements to date.

3. *Customers Accounts Department Discontinuance Notice Record*

A form entitled "Customers Accounts Department Discontinuance Notice Record" assists management in maintaining control of the issuance phase of Discontinuance Notice activity. It also serves as the basis for monthly reports covering issuance of Discontinuance Notices.

Discontinuance Notices are checked with the ledger records two working days prior to the due date of the notice. Fully paid notices are withdrawn and partial payments are posted to the respective notices. All those notices showing unpaid amounts are then forwarded to the Collection Department.

A file is maintained in the Collection Department in route order, containing all notices received from the Customers Accounts Department. This file is maintained in such a fashion as to reflect the current status of all notices received from the Customers Accounts Department, and serves as a medium of control for management with respect to discontinuance notice activity.

A form entitled "Collection Department Discontinuance Notice Record" assists management in maintaining control of the collection treatment phase of discontinuance notice activity. The prime function of the discontinuance notice record is to assure the proper follow-up of each notice issued.

Telephone Follow-Up of Unpaid Notices

On the working day prior to the notice due date, telephone calls, where telephone facilities are available, are made to the customers, in accordance with instructions issued by local management. Information concerning all such calls is recorded on the discontinuance notice for purposes of subsequent follow-up. Extensive use of the telephone results in reducing field calls on notices to a minimum.

Field Calls on Unpaid Notices

Field calls are scheduled for the first working day following the notice due date and every effort is made to effect collection on each notice on the scheduled date.

A Collection Representative does not take it upon himself to discontinue service without first contacting the customer.

Service is not discontinued on a Friday, or on a day preceding a holiday, unless exceptional conditions in the judgment of the manager warrant such action, since the Company makes every effort to avoid unnecessary delay in restoring customer's service should payment be received.

A daily report of field work is prepared by each employee assigned to Discontinuance Notice work and turned in to the Supervisor at the end of the day. This report shows information concerning the work assigned, and the details of the completed work and the work not reached.

Letter Follow-Up

When an employee assigned to field work on Discontinuance Notices is unable to obtain payment and does not discontinue the service, a follow-up letter is sent to the customer. The type of letter to be sent to the customer is determined from the report of the facts entered on the reverse side of the Discontinuance Notice by the employee who made the field call. Letters used in this connection cover the following conditions:

1. Payment received deemed insufficient to warrant further extension of credit.
2. Customer was not at home.
3. Some one other than the customer was interviewed.
4. Employee was refused access to the meters.

The letters confirming results of collector's calls serve not only as a reminder and request to the customer for payment, but also assure, or at least encourage, accurate reporting by employees in the field.

Letters to customers concerning discontinuance of service at the outside, i.e., at the pole or curb, are limited to accounts supplied by an individual or separate service connection.

The date and type of such letters sent are recorded on the current ledger record of each account involved.

A Commercial Office representative accompanies each Distribution Department representative assigned to work non-payment orders for discontinuance of service at the outside. Every effort is made by the Commercial Office representative to effect collection in each such case before any attempt is made to discontinue service. Cancellation of such orders depend upon supervisory decision.

Inactive Accounts

When an account has been inactive for one month after discontinuance for non-payment, an order is issued to make such discontinuance permanent on the meter reading records and the unpaid charges are then transferred to the final unit.

Commercial and Industrial Accounts

a. *New Accounts*

Bills for new commercial and industrial accounts are reviewed by the Credit Department to determine the inadequacy of deposit or the need for obtaining a deposit, and appropriate action is taken. This review covers a period sufficiently long to permit proper determination of the adequacy of protection against loss.

b. *Long Service Accounts*

When the paying habits of a long service commercial or industrial account are such that the payment of the final bill for service is in question, a request for a deposit is made, to guarantee payment of the final bill.

In general, no field collection treatment is accorded current accounts. Where warranted, telephone calls may be made on certain accounts in order to eliminate the necessity for field calls.

Collection Agencies

Several years age the company accepted the services of the American Express Agency and now has approximately 450 payment stations in the system. Sixty-eight Banks and Savings and Loan Associations are also accepting payment as direct agents, with a fee of five cents collected from the customer for each payment. These payment agencies have helped materially in permitting a reduction in field collection coverage.

Conclusions

As stated previously, one company's procedure and practice cannot possibly be expected to meet the requirements of other companies. The uniform adoption by this company, of the procedure outlined herein has contributed to the attainment of the lowest outstanding delinquent percentages in its forty-seven years of operation as an electric and gas utility. It is recognized, of course, that this condition is at least partially a result of improved economic conditions.

Careful consideration continues to be given to all phases of collection work and each new idea is closely reviewed for possible adoption.

If this presentation were intended to represent a composite of new collection practices of several companies, rather than a factual description of the practice and policy of one, your attention most certainly would be called to "drive in" paystations such as those provided by the East Ohio Gas Company. The spotlight would shine briefly on the Consolidated Edison Company of New York for providing a "roving cashier service" in the form of a bus converted to a rolling cashier's cage, which travels on an announced schedule from one neighborhood to another, transporting facilities for payment of bills by those

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Program of Joint AGA—EEI Subcommittee on Capitalization of Overheads

By E. Toder
Consolidated Telegraph & Electrical Subway Co.

An address before the National Conference of Electric and Gas Utility Accountants, Louisville, Ky., April 17-19, 1950

DIFFERENCES in methods presently employed by gas and electric companies for the accounting of overhead costs produce variations in the recorded cost of utility plant and the statement of net income and these variations in accounting results are greatest in periods of large plant construction and expansion. The overhead costs referred to come under the following general classifications:

1. Administrative and General Expenses.
2. Interest during Construction.
3. Federal and State Payroll Taxes, Sales Taxes, etc.
4. Costs of so-called "fringe" benefit payments and other costs applicable to employees assigned to construction operations.

The Program Summarized

The program of this Subcommittee may be summarized as follows:

1. To formulate and set forth the accounting, economic and financial reasonings for the treatment of overhead costs in the accounts and to indicate the conditions under which such costs may be included in cost of utility plant or charged to operations.
2. Where the circumstances warrant the capitalization of overhead costs, to report on the methods of computation and application of such costs to construction to the end that the accounting is fair and reasonable and meets all of the requirements of the Uniform Systems of Accounts.

Control of Methods

In arriving at determinations and conclusions, studies must be directed to the discretions permitted in the accounting for overhead costs under the Uniform Systems of Accounts. Corporate managements must retain and exercise the fullest possible control of the accounting methods for the statement of investment in utility plant and net income. This subcommittee will first direct its attention to a study of the factors to be considered by management in deciding whether or not to capitalize various overheads.

Accounting Practices

The program will include review of the accounting practices for recording of overhead costs in railroad, telephone and water companies which are regulated in manner similar to that of gas and electric companies. While the accounting practices in these industries must be considered, their conclusions are not necessarily binding. It must, however, be borne in mind that in regulated industries, rates charged to consumers are based for the most part upon net return on investment in utility plant and this calls for more detailed accounting treatment for the accumulation of such costs than is required in the case of non-regulated industries. The program will include review of all available accounting literature relating to accumulation and distribution of overhead costs, review of legal decisions relating to the accounting for overheads, and interpretations by the various public utility commissions. Studies should also be directed toward the manner in which overhead costs are treated in the determination of net income for computation of federal income taxes. Certain overheads such as taxes and interest during construction are frequently included in the investment account for utility plant and at the same time also included as deductions in arriving at the amount of taxable income. Perhaps, other overhead costs may be similarly treated so that the relationships between financial accounting and tax accounting may be more clearly defined.

Following the formulation of the general reasons relating to the treatment of various overhead costs, the problems then involve the methods of computation and application of such costs to construction.

Administrative and General Expenses

Studies will be made of detailed methods for the capitalization of proportions of costs included in the Administrative and General Expenses group of accounts under the Uniform Systems of Accounts. The following represents a grouping of the Administrative and General Expenses to which detailed consideration must be given:

Account 790 —Salaries of General Officers and Executives.
Account 791 —Other General Office Salaries.
Account 792 —Expenses of General Officers and Office Employees.
Account 793 —General Office Supplies and expenses.
Account 802.1—Maintenance of Structures and Improvements.
Account 802.2—Maintenance of Office Furniture and Equipment.
Account 802.3—Maintenance of Communication Equipment.
Account 803 —General Rents.

Construction Cost

The Uniform Systems of Accounts make provisions for including in construction cost the portion of these costs considered to be reasonably applicable to construction. Some costs recorded in these accounts, which bear no relation to construction activities, such as the salaries and expenses of a tax department, fuel department or rate engineers department, should be considered solely as operating expenses. Other costs, such as the salaries and expenses of the purchasing department, payroll department, personnel department, general accounting department, etc., may bear a more direct relation to construction ac-

tivities and, hence, may be considered in part to be applicable to construction costs.

In all questions involving bases for the capitalization of overhead costs, it must be borne in mind that because of differences in organization of the various companies certain expenses may in one company be charged to Administrative and General Expenses and in another company to Clearing Accounts. However, the ultimate accounting for these costs should not be affected by the manner in which the company is organized. Attempts must be made to develop sound bases for the distribution of these costs to construction and operating expenses so that the costs charged to construction represent reasonable overhead costs bearing definite relationship to construction.

Account 794 —Management and Supervision Fees and Expenses.
Account 795 —Special Services.
Account 796 —Legal Services.

Classification of Costs

Some of the costs recorded in these accounts may be considered to be applicable to construction cost while others have no relationship to construction. Studies should be directed toward classification of specific costs in the proper categories.

Account 797 —Regulatory Commission Expenses.
Account 798 —Insurance.
Account 801 —Miscellaneous General Expenses.
Account 802.4—Maintenance of Miscellaneous Equipment.
Account 804 —Commissions Paid Under Agency Sales Contracts.
Account 805 —Franchise Requirements.
Account 806 —Duplicate Miscellaneous Charges—Credit.

The costs in these accounts ordinarily do not bear any relationship to construction.

Account 799 —Injuries and Damages.
Account 800.1—Employees' Welfare Expenses.

The costs charged to these accounts are definitely related to construction and the proportion of costs applicable to construction payroll may be considered as proper costs to construction. The Uniform Systems of Accounts specifically include Injuries and Damages in connection with construction work as a component cost of construction.

Account 800.2—Pensions.

Recent union demands have emphasized the problems involved in the accounting for pension costs and have again raised the question as to whether any of these costs are to be charged to construction. The problems involve the bases for the distribution of past service costs as well as present service costs and the treatment to be accorded to pension costs incurred under funded and unfunded plans. The accounting for past service costs must be considered in relation to the conclusions reached by other industries, both regulated and non-regulated.

Studies will also be directed toward the decisions and interpretations by the various public utility commissions proceeding from Bulletin 8 entitled: "Capitalization of Administrative and General Expenses" which was adopted by the National Association of Railroad and Utilities Commissioners.

Interest During Construction

The Uniform Systems of Accounts make provisions for the including of interest during construction as a cost of construction stating that it "includes the net cost of borrowed funds used for construction purposes and a reasonable rate upon the utility's own funds when so used." Studies should be made of the factors to be considered in the determination of the net cost of borrowed funds which include the cost of funds secured from bonds and other debt, together with all premium and discount costs and the determination of the cost of the utility's own funds as represented by preferred and common stock. It would be well to present methods and procedures to be used in the determination of the cost of capital represented by debt, preferred stock and common stock. The accounting problems involving interest during construction also include the determination of the periods for which interest is to be charged and the limits for work orders to which such interest is to be charged. Questions were also raised last year as to the propriety of charging interest during construction to plant investment where the amount of construction work in progress was included in the rate base. There have been certain pronouncements on this subject by courts and commissions and the subject should be further considered.

Federal and State Payroll Taxes, Sales Taxes, Etc.

The costs represented by these taxes are increasing and insistent demands are being made for still further increases. New York State has recently enacted a disability benefits law and other states may follow. These taxes are based on payroll and consideration must be given to the methods for the final accounting of such costs as between construction and operating expenses. Consideration will also be given to the accounting for sales taxes which relate to materials purchased for construction.

"Fringe" Benefit Payments and Other Costs Applicable to Construction Employees

Costs represented by so-called "fringe" benefit payments and other costs applicable to employees assigned to construction present problems in the accounting therefor. Provisions for vacation pay, holiday pay, sickness and other excused time which are now incorporated in most union contracts, add up to a significant percentage of payments made for direct payroll. It would seem that some degree of consistency should be established by which costs which are applicable to construction labor are finally charged to construction in the same manner as direct labor charges. Some companies include these costs in man-hour rates which then are charged to construction work orders in one figure for labor and related expenses. Other companies make direct distribution of these costs usually together with other engineering and supervision costs. The various accounting methods of distributing these overhead costs will be presented for consideration.

This statement represents an outline of the program of study and inquiry to be pursued by this Subcommittee. Each topic represents a project involving considerable study. The Joint Committee has decided upon this general program and has assigned the study of specific parts to individual members. The results

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Accident Prevention Committee Meeting

By W. T. Rogers, *Chairman*

THE Spring Meeting of the Accident Prevention Committee was held on May 1 and 2 at the Edgewater Beach Hotel in Chicago with 50 members and guests in attendance.

1949 Accident Experience

H. J. Crisick presented tentative totals for accident experience of the industry in 1949. The frequency declined for the second consecutive year, reaching the lowest level since 1945, but the severity increased to approximately the same level as in 1947 which was the highest since 1938. This increase in severity was due primarily to an increase in fatalities. The number of fatalities exceeded the number occurring in the peak year of 1947 although the frequency rate of fatalities was not quite so great. Tentative data for 1949 compared with final data for 1948 follows:

	1949	*1948*
Manhours	572,079,967	554,694,429
Frequency Rate	14.02	14.80
Severity Rate	2.37	2.11
Fatalities	167	141

A. H. Doud presented three new posters for the Committees' series on industry safety which were approved for release.

Round Table Discussions

A round table discussion conducted by R. P. Douglas included a variety of subjects. Continuing problems with flimsily constructed television antennas installed too near power lines were reported. The National Safety Council, in cooperation with television receiver manufacturers and installers, is preparing a pamphlet covering both electrical and mechanical phases of safe installation. Representatives of several companies described programs for cooperating with local fire organizations in handling fires in the vicinity of electric lines and equipment. Discussion revealed a trend toward connecting operating handles of pole top disconnecting switches to ground grids on which the operator stands while operating the switch with rubber gloves. Most of the companies represented permit splicing of energized underground secondary cables but none permit such work on primary cables. A substantial number of companies chart their underground service areas to indicate where hazardous manhole gases may be encountered and a few require tests before entering any manhole. Careful selection of men was considered the best safeguard against falls while performing work on steel structures since it is difficult to secure men in position while permitting reasonable freedom of movement. Life lines may provide a false sense of security since the dynamic load from a relatively short fall is sufficient to break a half-inch rope or to produce serious internal injuries. Several companies use speed governors on trucks and a few use them on passenger cars but a considerable number of those present believe that use of governors creates a hazard.

New Mechanical Resuscitator

E. F. Hahnfeldt of Mine Safety Appliance Co. demonstrated a mechanical resuscitator utilizing a valve developed during the war which provides for applying intermittent positive pressure to victims requiring artificial respiration. A bypass attachment also permits the victim to gulp large quantities of oxygen as he begins to recover.

G. J. Ruoff distributed another in the series of Exchange Bulletins describing recent accidents of particular interest. Contrasting results of two similar cases of falls from poles emphasized the desirability of tool buckets. One victim carrying an excessive number of tools in his body belt sustained multiple internal injuries which probably will prevent his return to line work while the other carrying a minimum of tools only at the side of his belt sustained no permanent disability. In this connection Mr. Ruoff displayed one body belt without any loops for tools and other with a clip on the pliers keeper which releases a rope handline if it becomes snagged. A new process for insulating tools with a plastic covering was described. Mr. Ruoff demonstrated a newly developed switchstick for removing covers from closed type cutouts.

A. L. Dowden of the Liberty Mutual Insurance Co. described a program designed to acquaint linemen with electric shock hazards by using scale models of pole construction on which fatal accidents have occurred.

W. R. Smith distributed copies of a report on identification and safeguarding of work areas outlining the fundamental principles upon which effective and dependable procedures are based.

Publication of new ASA specifications for rubber line hose, hoods, blankets and sleeves was announced by I. R. Dohr. Good progress also is being made on revised specifications for rubber gloves.

Following discussion, the consensus was that it would be desirable to produce line hose with ends colored red as an optional feature to provide a visual warning when the hose has slipped from bells, hoods or blankets.

H. O. Sprinkle reported that a survey of companies represented on the Committee reveals that a few use either leather or special low voltage gloves for low voltage work. Most of these use such gloves only for meter, relay or underground work. The majority also require secondaries to be covered under certain specified conditions and some require covering under all conditions.

I. B. Chandler of the Electro-Alarm Sales Co. demonstrated an electronic device for attachment to crane booms to provide an aural warning of proximity to energized lines. G. MacDonald also reported that the Public Utilities Section of the National Safety Council is preparing an educational pamphlet on crane contacts with overhead lines for distribution to contractors.

Mr. W. R. Smith was honored on his retirement at a luncheon and was presented with a scroll of signatures of his associates in appreciation of many years of devoted service to safety activities of the industry.

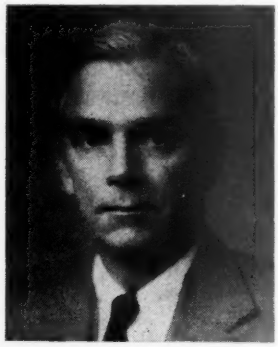
Program of Joint AGA-EEI Subcommittee on Capitalization of Overheads

(*Continued from page* 180)

of these individual studies will then be reviewed and discussed by the Committee as a whole, the conclusions of the individual members correlated, and a comprehensive presentation made of the entire subject. The electric and gas industries need a complete report and discussion of all the factors relating to the accounting for overhead costs. It will require much study and the members of the Committee will hold themselves open to function continually until this project has been finally completed.

PERSONALS

AUSTIN D. BARNEY, president and director of Hartford Electric Light Co. and chairman of the board of Connecticut Power Co., has been elected president of the latter company. He succeeds ALLAN D. COLVIN, who died March 11.



MR. BARNEY

Mr. Barney, a graduate of Yale Law School, became a counsel for the Hartford company in 1924 and was made general counsel in 1928. In 1936 he was named vice president, in 1944 a director, and in 1946 president. He also has served as general counsel for Connecticut Power.

Mr. Barney's family has been associated with Hartford Electric Light for three generations. His father was an officer of the company, and his grandfather, the late Austin D. Dunham, was its first president.

Vice president and director of the D. N. Barney Co., Mr. Barney also is a director of Edison Electric Institute and of a number of insurance and industrial companies.

ERNEST R. ACKER, president of Central Hudson Gas & Electric Corp., Poughkeepsie, N. Y., and past president of the EEI, has been elected to the Connecticut Power Co. directorate.

CHARLES E. MICHEL, vice president of Union Electric Co. of Missouri, has retired after 43 years with the utility. He will remain as a director and will act as a consultant on executive problems. Mr. Michel joined Union Electric in 1907 as manager of the automobile department. He became sales manager in 1918 and vice president in charge of sales in 1935. A former president of the St. Louis Electrical Board of Trade and the Missouri Association of Public Utilities, he won the James H. McGraw Award Medal for Cooperation in 1933 for his leadership in coordinating development of the electric market in St. Louis.

Mr. Michel was a member of the Board of Directors of the Institute in the years 1947 to 1949. He served on various Commercial Section Committees of NELA beginning in 1918, and in 1921-22 was vice chairman of the Executive Committee of the Commercial Section.

Several executive changes have been made by New England Electric System with the departure on leave of absence of WILLIAM WEBSTER, executive vice president, to become chairman of the Defense Department's Research and Development Board.

JOHN WEST and JOHN I. AHERN have been elected vice presidents. ALFRED W. SMITH will succeed Mr. West as president of Worcester County Electric Co. and ROBERT F. KRAUSE has been appointed assistant to the president.

Mr. West, whose headquarters will be at Boston, will be responsible for the retail companies in New Hampshire and Massachusetts except for Attleboro and Fall River, Mass. He has been in utility work since 1907 and has been associated with New England Electric System companies for nearly 40 years. His activities as a consulting engineer have included work in Europe, Central and South America, and the United States.

Mr. Smith, who is an assistant vice president, joined the system group in 1925 and has specialized in financial phases of management during his 25 years there.

Mr. Ahern, who has been an assistant vice president, will continue to have his headquarters at Boston. He began with Weymouth (Mass.) Light & Power Co. in 1930 and has been active in system public relations.

Mr. Krause is an attorney in the corporate department of New England Power Service Co.

Thomas G. Dignan, president of Narragansett Electric Co., Providence, will continue to be responsible for system property operation in Rhode Island and Connecticut and in Attleboro and Fall River.

PHILIP A. FLEGER has been elected chairman of the board and chief executive officer of Duquesne Light Company. At the same time the directors re-elected PRESSLY H. MCCANCE, president, and EDWARD O. BOSHELL, chairman of the executive committee.

This action, which was taken at a recent organization meeting of the Board of Directors, is the first step in preparation for the ultimate independent ownership and operation of Duquesne Light Company. Philadelphia Company, parent of Duquesne, was recently ordered by the Securities and Exchange Commission to dispose of its gas and transportation properties and to then dissolve.

MR. FLEGER

Mr. Boshell is chairman of the board and president of Philadelphia Company and Standard Gas and Electric Company. Mr. McCance has been president of the Duquesne Light Company since 1942.

Mr. Fleger has been in the utility business for about 25 years. He first became associated with the Philadelphia Company and its subsidiaries in 1926 as a law clerk and later became general attorney. In 1940 he was made vice president and two years later became senior vice president. He has been executive vice president since 1946.

Mr. Fleger, a native of Chicago, after attending the University of Illinois, graduated from the University of West Virginia with the degree of Bachelor of Laws. He is a director of The Farmers Deposit National Bank and the Reliance Life Insurance Company, and a member of the Allegheny County Bar Association, the Pennsylvania Bar Association and the American Bar Association.

CLARENCE L. LAW has retired as vice president in charge of public relations for Consolidated Edison Company of New York, Inc. Mr. Law had served the

company and its predecessor, New York Edison, for more than forty-three years.

RAY MARTIN has been appointed director of advertising and DENNIS S. MELVIN has been named manager of the Advertising Department of Consolidated Edison.

Mr. Law has been identified with either customer or public relations since he first joined The New York Edison Company in 1906, and for most of his career he has been active in civic and industrial affairs. He became general commercial manager for New York Edison in 1928 and, in 1935, was appointed executive assistant to the president. He was elected vice president of Consolidated Edison when its public relations activities were coordinated in 1939. In this post he was in charge of the company's advertising, editorial, and economic research and industrial development departments and directed its relations with civic and industry associations.

More recently, Mr. Law also has been director of the Westchester Lighting Company and the Yonkers Electric Light and Power Company, subsidiaries of Con Edison.

Mr. Law, who has held posts in a great many industry and civic organizations, has been a director of the Electrical and Gas Association of New York, the Regional Plan Association; and also a member of the Business Executive Advisory Committee of N. Y. City's Department of Commerce and of the Publicity and Advertising Committee of the American Gas Association.

Mr. Law was a member of the Lighting Sales Bureau of NELA from 1916, serving as chairman of the Bureau in 1920-21. He was also a member of the Commercial Section's Executive Committee from 1922 to 1924.

Mr. Martin began his public utility career as a salesman with the Consolidated Gas Company in 1922 and a year later became director of display. Following the mergers of various New York gas and electric companies in 1936, he became art director of the Advertising Department. He was made assistant manager of the department in 1942 and manager in 1946. In 1948 he became assistant director of Advertising.

Mr. Melvin as manager of the Advertising Department will concentrate on administrative and organizational matters. He has held various administrative posts in Consolidated Edison System Companies since he joined United Electric Light and Power Co. as a district salesman in 1929.

Following the company mergers of 1946, he became manager of the Appliance Promotion Bureau of the Sales Department. After sixteen years of sales work, he transferred to the company's Purchasing and Stores Department where he became manager of the Construction Contracts Bureau.

C. M. TURNER has been elected vice president of The Cincinnati Gas & Electric Co. and its subsidiary, The Union Light, Heat & Power Co.

Mr. Turner is a graduate engineer of the University of Washington, Seattle. He has been connected with the utility industry for thirty years, first in the operation end of the business with the City of Seattle Light Department and with the Puget Sound Power & Light Co. For five years he was assistant engineer with the Washington State Regulatory Commission in Olympia.

In 1930, Mr. Turner joined the Electric Bond & Share and its subsidiary, the Ebasco Services Inc., which companies he served for twenty years as a consultant in various sections of the United States.

He is vice chairman of the Electric Water Heating Committee of Edison Electric Institute and a member of the Load Research Committee, Association of Edison Illuminating Companies.

D. E. KARN has been elected first vice president of Consumers Power Co., Jackson, Mich., and J. H. CAMPBELL has been named a vice president.

H. S. RICHMOND is now assistant general supervisor of sales and rates reporting to Vice President M. W. Arthur, who is in charge of this department. Mr. Richmond retains his position as director of employee relations.

Mr. Karn started in the steam heating department of Central Illinois Light Co., Peoria, in 1915. Seven months later he left that company to become superintendent of steam heating of Consumers at Grand Rapids. He went to Springfield (Ill.) Gas & Electric Co. on a special assignment in the summer of 1918 but resumed his position at Grand Rapids the next year and took on the additional responsibilities of power engineer.

In 1921, two years after his assignment to the rate department at Consumers headquarters in Jackson, Mr. Karn was made assistant to the general manager. When the customer ownership plan of selling preferred stock was inaugurated in 1924 he was placed in charge of this activity.

Mr. Karn became division manager at Kalamazoo in 1927 and assistant general manager in Jackson four years later. In 1933 he was made vice president and general manager.

Mr. Campbell is a son of the late B. G. Campbell, for many years manager of Consumers' Pontiac division. The son joined Consumers in 1933 as a power and lighting sales engineer in the Lansing division. From 1939 to 1942 he served as a power sales engineer for Ohio Edison Co. in Youngstown.

In 1946, after his return from military service, Mr. Campbell rejoined Consumers as assistant to the Grand Rapids division manager. He was made division manager in 1947 and assistant to the president in 1949.

ARTHUR J. MCEACHERN has been appointed vice president of Boston Edison Co. in charge of industrial relations. Since 1942 he has been manager of industrial relations.

OSCAR B. BENSON has been named assistant vice president of Boston Edison. He has been assistant manager of industrial relations since 1943. Earlier he served as assistant chief of electrical operations and substations.

Mr. McEachern began work with Boston Edison 44 years ago as a messenger boy. For many years he was connected with the purchasing department and served as an assistant purchasing agent. In 1940 he became assistant industrial relations manager.

EARL E. MENSCH, manager of the Williamsport division, Pennsylvania Power & Light Co., has been named vice president of the newly created division formed by the consolidation of its Susquehanna and Williamsport divisions. MERLE S. LAWRENCE, formerly manager of the Susquehanna division, has been appointed Secretary of the company with headquarters at Allentown, Pa.

Mr. Mensch has been associated with PP&L and a predecessor organization for more than 40 years. He started his utility career with the Jersey Shore Electric Company as office boy in 1909, rising to manager of that company in 1917. After merger of the Jersey Shore utility with PP&L in 1923, Mr. Mensch was made chief clerk of its Williamsport

division. He was promoted to manager of the Williamsport district in 1929, to assistant manager of the Williamsport division in 1932, and to division manager in 1935.

Mr. Lawrence likewise has a long background of utility experience. He started as a meter-reader with the Ohio Power Co. in 1918. Following a series of promotions, he had risen to assistant superintendent of the Ohio utility's Dennison District prior to coming with Pennsylvania Power & Light in 1928, where he joined the construction department at Hazleton, Pa. Mr. Lawrence was later transferred to the company's sales department where he served in several supervisory capacities before being promoted to manager of its Susquehanna division in 1939.

Mr. Mensch will continue to make his office in Williamsport, the headquarters for the new Susquehanna division. Consolidation of the two divisions under a local vice president is part of the company's program of decentralization of management functions, and for placing of more of the day-by-day business between the company and its customers in the hands of home-town representatives. The move substantially increases the responsibilities of the local district managers.

Depreciation Accounting Practices of Individual Companies

(*Continued from page* 174)

more than 85 per cent of the utilities had completed segregation of accounts." Also, the Federal Power Commission report is stated to cover a total of 249 companies reporting total Electric Plant of $10,783,949,000. The percentages just given as set forth in the F.P.C. report are based on the number of companies studied regardless of size and all are classified as being on a "straight-line" basis unless they specially follow the retirement reserve, interest or revenue basis for accruing depreciation.

In our "trial run" covering only companies having members on the depreciation committee, only nineteen companies are covered but the electric plant total for these nineteen companies is $4,981,000,000 or nearly one half dollarwise of those covered by the Federal Power Commission, and eight of the nineteen report no segregation at all of the reserves, and only five report a segregation by primary accounts.

CONVENTIONS AND MEETINGS

1950

JUNE

5-7 Edison Electric Institute, Annual Meeting, Atlantic City, N. J.
12-16 National Association of Electrical Distributors, Annual Convention, Atlantic City, N. J.
12-16 American Institute of Electrical Engineers, Summer Meeting, Pasadena, Calif.
15-19 Canadian Electrical Association, 60th Annual Convention, Manoir Richelieu, Murray Bay, Que., Canada.
19-20 Pennsylvania Electric Association, Electrical Equipment Committee, Abraham Lincoln Hotel, Reading, Pa.
19-21 American Society of Heating & Ventilating Engineers, Semi-annual Meeting, Muskoka Lakes, Ontario, Can.
19-23 American Society of Mechanical Engineers, Semi-Annual Meeting, St. Louis, Mo
26-30 American Society for Testing Materials, Atlantic City, N. J.
29-July 8 International Conference on Large Electric Systems (CIGRE), Paris, France.

JULY

10-12 World Power Conference, London, England.

AUGUST

21-25 Illuminating Engineering Society National Technical Conference, Hotel Huntington, Pasadena, Calif.

SEPTEMBER

25-27 American Trade Association Executives Annual Meeting, Somerset Hotel, Boston, Mass.
27-29 Canadian Electrical Manufacturers Association Annual Meeting, General Brock Hotel, Niagara Falls, Ontario, Can.

OCTOBER

2-6 American Gas Association Annual Convention, Atlantic City, N. J.
3-5 American Institute of Electrical Engineers, District No. 2, Baltimore, Md.
11-14 International Association of Electrical Leagues, 15th Annual Conference, Copley Plaza Hotel, Boston, Mass.
16-20 38th National Safety Congress, Chicago, Ill.
17-21 National Electrical Contractors Association Annual Convention, Biltmore Hotel, Los Angeles, Calif.
23-27 American Institute of Electrical Engineers, Fall General Meeting, Skirvin Hotel, Oklahoma City, Okla.

NOVEMBER

8-10 Wisconsin Utilities Association, Electric and Gas Section, Schroeder Hotel, Milwaukee, Wisc.
13-16 National Electrical Manufacturers Association, Chalfonte-Haddon Hall, Atlantic City, N. J.
27-29 American Standards Association Annual Meeting, Waldorf-Astoria Hotel, New York, N. Y.

Collections—Tailored to Your Measure

(*Continued from page* 178)

customers who find this service convenient. No attempt is made in this paper to evaluate, praise or condemn the practices of others. Credit is reflected rather on the effort to meet the challenge of changing economic conditions.

The Committee sincerely hopes that the presentation of the collection practices of this company may have been helpful to others in some manner.

If the plan described in the foregoing has afforded a basis for comparison with the plan in use by your company;

If, as a result of this comparison, you are pleased with your self appraisal and satisfied with your overall results;

If you find that your present collection raiment is protective and designed to permit of alterations as needed;

If you wear your raiment with a feeling of confidence and the effect is pleasant and acceptable to your friends, the customers;

If your raiment does this and still does not represent an expenditure disproportionate to your income; then you have the material for

"Collections—Tailored to your Measure."

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